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ABSTRACT

Phase III, Volume IV, Part A of Project NECESSITIES consists of 10 activities intended for kindergarten-aged American Indian (including Eskimo) children. Some of the supplementary materials needed to teach these activities ("Symbol Formation" and "An Animal Alphabet") are appended. The unit, entitled Learning to Communicate, begins with non-verbal activities and ends with activities involving symbolic writing. Part B, (People, Places and Things) for 1st graders is divided into 3 sub-units: Homes; Homes and Schools; and School, Land and Community. The sub-units are designed to provide the Indian student with a knowledge not only of his own way of life but also of the way other people live. Each set of classroom activities which precedes the instructional narratives is meant to provide a reference for several days of teaching. Each includes a short overview of the activity itself and indicates the materials and equipment needed to carry out the activity. (LS)

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TEACHING MATERIALS FOR
KINDERGARTEN AND
FIRST GRADE

PROJECT NECESSITIES

PHASE III

VOLUME IV

July 1970

RC005168

VOLUME IV

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FOREWORD

The following kindergarten and first grade curriculum materials were prepared in draft form during the winter and spring of 1970 by the Project staff. In June, at a Project NECESSITIES Curriculum Practicum teachers from both Bureau and public schools serving Indian children participated in refining the work of the staff and editing and writing the instructional narratives.

The following people contributed much to the work you will find in this teacher's edition:

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Justine Sutphen, First Grade Teacher, Eagle Butte, S.D.
Lola Valnes, First Grade Teacher, Sisseton,S.D.

Project Staff who worked on this material under the leadership of Tom Cracas, Elementary Manager, included Dick Ruopp, Project Director; Patty Harjo, Junior Consultant; and Jason Chee, Project Artist who was responsible for the Signal Code Book, Symbol Formation, and An Animal Alphabet.

The Kindergarten material has been designed for beginning students, therefore it can be used by first graders who have had no previous school experience. It can also be used for remedial work in second and third grades.

In the same manner, material from the first grade material has been used with second graders.

Please feel free to adapt the material to your own local situation and student needs.

A NOTE ABOUT SUPPLEMENTARY MATERIALS NEEDED TO TEACH THESE TWO YEARS

A. KINDERGARTEN

Project Materials

1. Signal Code Book (one for each student)
2. An Animal Alphabet (two to three for each classroom)
3. Symbol Formation (one for each student)

B. FIRST GRADE

Project Materials

1. Homes' Portfolio (one for each student)
    - a) Card Sort Game
    - b) Coloring Cutout Sheets
    - c) Pre-Post Test
    - d) Animals We Know
    - e) Homes
    - f) Summer Homes
    - g) Animals
    - h) Animal Homes

C. FILMS

All of the films listed are available through:
Bureau-Wide Film Service
P.O. Box 66
Brigham City, Utah 84302

D. BOOKS

Books listed:
Librarian - I.S.C.
P.O. Box 66
Brigham City, Utah
84302

VOLUME IV

PART A

KINDERGARTEN: LEARNING TO COMMUNICATE

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10 DRAFT OUTLINE OF CLASSROOM ACTIVITIES FORMS .....

*Deleted because of non reproducibility. Guides are available from:

The Children's Television Workshop
1865 Broadway
New York, New York 10023

Guides 1 though 6, 1969-70, were used in this document.

INTRODUCTION

What does a young child need to know? Where should his beginning school experience be centered?

First, he needs to be able to communicate his needs, his feelings, his thoughts. He needs words to put with the rich experiences he has already had when he comes to school, and he needs to be conscious of those words and how they can be used for his own freedom.

Having decided this, several of the Project staff sat down to figure out how we learn words, words with meaning. Many of the teachers who use our materials have beginning children who don't speak English, not a word. That produces a lot of frustration. Sometimes fear. Particularly if the teacher in turn shares the same frustration, wants her children to "get on with it," pushes hard. That's where we got the notion that the first ten weeks of a child's schooling ought to center on gesture and sign language as a fundamental way for people to talk to each other. It's easy to learn, it's fun, it's a secret language in a way, and most importantly it overcomes the barriers that age, and verbal skill, and mastery of English puts between teacher and tots. Besides, its value as a *lingua franca* was long ago utilized by Indians. And you teach Indian children who need to know that.

The rest was easy. Gesture leads to facial expression, to full use of the senses, to the richness of pantomime for telling stories, saying how one sees the world and feels about it. And then another exciting thought occurs. Gestures are symbols. So are pictures. Symbols are what words are. Why not have the children learn to write--instantly--by creating symbols for their names, then learning each other's names,and the teacher's? Why not let them see familiar animals, and some not so familiar, with letters of the animal's name contoured to the shape of the animal's body, so symbol and shape are interchangeable? And why not let animals tracks, and brands, and trademarks, and all the other short hand visual ways of writing enter the scene, and liven the world of the eye?

And so this year of curriculum was born in which learning to read could happen more easily, and be more fun. Learning to speak could be a broader experience than the words made by mouths. That made sense, because a child should want to read--something. And therefore should learn reading, and writing, and speaking almost by the way. Tools and skills to do something real, and something important, and most of all something exciting.

We want you to have as much fun with this as we did. So make it your own. Play with it. Write us when something we suggested worked, and when it didn't. Most of all, let us know, when something you did or the children did, or you did together, is sharable with your colleagues elsewhere--and other kids.

This material is for beginners, whether kindergarten or first grade. It is also meant to be used to help second or even third graders who are having problems communicating.

A NOTE ABOUT THE USE OF THE OUTLINE OF CLASSROOM ACTIVITIES

Each set of Outlines or Classroom Activities which precedes the Instructional Narratives is meant to provide you with a quick reference for several days of teaching. Each includes a short overview of the activity itself and indicates the materials and equipment which will be needed to carry out the activity. A suggested only length of time is included. Following the set of Outlines is a blank set of Outline pages which you can use as you revise the Instructional Narratives to meet your own situation, the needs of your own particular students.

A NOTE TO THE TEACHER ABOUT THE USE OF THE INSTRUCTIONAL NARRATIVES

The narratives which follow the Outlines are not strait-jackets!

On the contrary, the narrative of classroom activities has specifically been written in the past tense so that you can "look in" on another teacher's classroom and see the way she chose to teach these materials.

There is no way to replace the critical role that teacher and student imagination play in making the classroom a place of real learning.

You may find that some activity modules will take two or three times as long as suggested. Others may take less time. You may also find that some of the activities need to be revised to meet the specific needs of your students: their cultural background, their individual capacities, and their previous learning experience.

The Project NECESSITIES staff hopes that as you "write" your own narrative of the day-to-day interchange in your classroom, you will share with us new ways that you and your students have found to make the following activities come alive. Perhaps in later versions of the narratives, others can benefit from your creativity.

LEARNING TO COMMUNICATE

UNIT I: NON-VERBAL

This eight week unit is designed to rapidly establish a series of gestures (signals, signs) which teacher and students can use to "talk" to each other.

The unit provides the basic experience of converting events and needs into code. This process will be critical to later verbal and written symbol learning.

Practically, it allows students and teacher to get things done with minimum frustration.

project NECESSITIES

UNIT TITLE: LEARNING TO COMMUNICATE
UNIT 1: NON-VERBAL
LEVEL: KINDERGARTEN
SUGGESTED LENGTH: EIGHT WEEKS (estimated)

OUTLINE OF CLASSROOM ACTIVITIES

Activity Module Number	Suggested Length of Activity	Title and Description of Classroom Activity	Materials for Classroom Activity	Equip-ment	Narrative detail on page no.
1 A	(approx) 2 days	Getting Acquainted Teacher used group observation, play and sensory centers, teacher-parent and teacher-pupil interviews to make students feel comfortable and to get acquainted with them.	construction paper sand box books, blocks, crayons metal picture of rainbow, monster perfume, smelling salts record of tribal music record of explosion or dissonance fur candy lemon	phono	14
1 B	2 days	Pictorial Recording of Summer Experiences The teacher made a pictorial record of the childrens' immediate pre-school experiences, as revealed to her in their interviews, for display on the bulletin board.	brown wrapping paper bulletin board		15
1 C	5 days	Introduction to Basic Hand Signals As the need arose, the teacher introduced the hand signals necessary to carry out the daily schedule: 1. "Greeting" 2. "Be seated" 3. "Look" 4. "Yes" 5. "No" 6. "Come to attention" 7. "Assemble" 8. "Line up" 9. "I am going to the bathroom." 10. "May I get a drink?" 11. "May I speak?" 12. "I need help." 13. "May I help you?" 14. "Listen"	Indian Sign Language by Robt. Hofsinde, Morrow & Co., New York, N.Y. 1956. (ISC) Signal Code Book (PN) bulletin board display		15

UNIT TITLE: LEARNING TO COMMUNICATE

UNIT I: NON-VERBAL

LEVEL: KINDERGARTEN

SUGGESTED LENGTH: EIGHT WEEKS (estimated)

OUTLINE OF CLASSROOM ACTIVITIES

Activity Module Number	Suggested Length of Activity	Title and Description of Classroom Activity	Materials for Classroom Activity	Equipment	Narrative detail on page no.
1 D	approx. 3 days	Application of Basic Hand Signals The teacher and pupils practiced basic hand signals and appropriate responses in their daily routine. They toured their school and playground and engaged in some group activities. The teacher used group games, songs, fingerplays and rhythmic activities for hand signal response.			17
1 E	3 days	Picnic A get-acquainted picnic was organized by the parents and families were invited. This activity was held at the end of the first week.			17

project NECESSITIES

UNIT TITLE: LEARNING TO COMMUNICATE

UNIT I: NON-VERBAL

LEVEL: KINDERGARTEN

SUGGESTED LENGTH: EIGHT WEEKS (estimated)

OUTLINE OF CLASSROOM ACTIVITIES

Activity Module Number	Suggested Length of Activity	Title and Description of Classroom Activity	Materials for Classroom Activity	Equipment	Narrative detail on page no.
2 A	1 1/2 days	Teaching Signals and Symbols The class reinforced the "greeting" signal by tracing the visual image of the symbol. Students demonstrated the use of the greeting signal and practiced it.	Signal Code Book		18
2 B	1 1/2 days	The "bathroom" signal was reinforced as the children traced the image with a crayon. Children looked for pictures of toilets and lavatories to paste on Signal Code Book page. Students acted the part of teacher in practicing the use of the bathroom signal.	Signal Code Book crayons magazines and catalogs scissors glue		18
2 C	1 1/2 days	Shadow play to act out the "offer to help" signal and reinforcement of the "May I help you?" signal by coloring the visual image to look like a shadow.	Signal Code Book black crayons	film strip Projector	19

UNIT TITLE: LEARNING TO COMMUNICATE

UNIT I: NON-VERBAL

LEVEL: KINDERGARTEN

SUGGESTED LENGTH: EIGHT WEEKS (estimated)

OUTLINE OF CLASSROOM ACTIVITIES

Activity Module Number	Suggested Length of Activity	Title and Description of Classroom Activity	Materials for Classroom Activity	Equipment	Narrative detail on page no.
2 D	1 1/2 days	"Yes"and "No" signals reinforced by cutting out a head and attaching to foam so heads can move as if nodding yes or no. Puppets used for further yes and no activities.	Signal Code Book scissors glue foam		19
2 E	2 days	Signals for "Stop,"Look," and "Listen" reinforced. Stop signs were colored, cut out, and pasted by visual image in book. Symbol for listening was traced. Children played crossing the street using the stop, look and listen signals.	Signal Code Book glue,scissors crayons		20
2 F	3 days	"Quiet" and "Attention" signals reinforced by tracing the visual images and by playing follow-the-leader to music, using "Attention" signal to stop. First student to stop goes to the beginning of the line.	Signal Code Book record	phono	20

UNIT TITLE: LEARNING TO COMMUNICATE

UNIT I: NON-VERBAL

LEVEL: KINDERGARTEN

SUGGESTED LENGTH: EIGHT WEEKS (estimated)

OUTLINE OF CLASSROOM ACTIVITIES

Activity Module Number	Suggested Length of Activity	Title and Description of Classroom Activity	Materials for Classroom Activity	Equipment	Narrative detail on page no.
2 G	2 days	"Assemble" signal reinforced by cutting out pictures of children from a catalog and pasting them around the visual symbol. Signal also used in an outdoor game.	Signal Code Book scissors catalogs and magazines glue		21
2 H	2 days	Signals for "Sitting down on a chair," "Sitting down on the ground," and "Standing Up" reinforced by gluing and glittering the visual images and by a game.	Signal Code Book glue glitter		21
2 I	3 days	Reinforced the symbols for line-up variations ("Single file," "double file," "horizontal line," "semi-circle," and "circle.") Children stitched yarn through visual symbol with pre-punched holes and glued ends of yarn down. Further use of signal. As teacher signaled, students arranged objects in appropriate patterns.	Signal Code Book yarn glue objects (blocks, popcorn, macaroni, plastic animals, squares, pop cans)		22

UNIT TITLE: LEARNING TO COMMUNICATE

UNIT I: NON-VERBAL

LEVEL: KINDERGARTEN

SUGGESTED LENGTH: EIGHT WEEKS (estimated)

OUTLINE OF CLASSROOM ACTIVITIES

Activity Module Number	Suggested Length of Activity	Title and Description of Classroom Activity	Materials for Classroom Activity	Equipment	Narrative detail on page no.
2 J	3 days	Teacher played record while children rested. To reinforce "rest" signal, children drew pictures of what they might think about while resting.	Signal Code Book crayons		22
2 K	2 days	Symbol for "Good" reinforced as children glued and glittered the visual images. Class responded to any appropriate signals from the Signal Code Book, Symbol Card Matching Board and Activity Cards, and after student responses, the teacher indicated "Yes," "No," or "Good."	Signal Code Book glue glitter Symbol Card Matching Board Activity Cards		23
2 L	7 days	Groups of children made up stories which they could communicate with signals. Teacher recorded their stories in hieroglyphic form with hand signals underneath the stick-man figures. The resulting hand book formed the basis of a game.			23

project NECESSITIES

UNIT TITLE: LEARNING TO COMMUNICATE

UNIT I: NON-VERBAL

LEVEL: KINDERGARTEN

SUGGESTED LENGTH: EIGHT WEEKS (estimated)

OUTLINE OF CLASSROOM ACTIVITIES

Activity Module Number	Suggested Length of Activity	Title and Description of Classroom Activity	Materials for Classroom Activity	Equipment	Narrative detail on page no.
2 M	4 days	Story groups acted out the stories they had made up previously, and other groups had to decode and act out the signals. Stories developed and were combined, and children evaluated the effectiveness of the signals.			24
2 N	2 days	Administering the Post-Test The teacher used the Symbol Card Matching Board and Activity Cards to test each child's understanding of the basic hand signals.	Symbol Card Matching Board Activity Cards		25

LEARNING TO COMMUNICATE
UNIT I: NON-VERBAL

CLASSROOM NARRATIVES

ACTIVITY ONE

A. Getting Acquainted

The activity began as each child arrived on the first day of school. The teacher, along with a parent aide who also served as interpreter, directed the child to an activity center of his choice. The activity centers included puzzles, a sand box, picture books, blocks, and a sensory center which was available to the children for experimenting in the area of the five senses. It included:

	Pleasurable	Not Pleasurable
Taste	sweet - candy bits	sour - lemon peel
Touch	soft - fur	hard - metal
Hearing	soothing - tribal music	loud - dissonance or explosion
Sight	pretty - picture of rainbow	ugly - picture of monster
Smell	nice - flowers	nasty - smelling salts

While the children, with the help of parents or aides, explored the play centers, the teacher and interpreter talked with parents to discover each child's interests, previous school experiences and attitudes, general health problems or other pertinent information. The teacher recorded information gained.

The children played at the activity centers while the teacher and interpreter either circulated around the room or gestured for one child to come to a special place and be seated. Through question and answer games, each child was encouraged to talk about himself, his family or previous school experience. Children also told about their likes and dislikes, and the games, songs, and fingerplays they knew.

B. Pictorial Record

The teacher asked the children about their immediate pre-school experiences and recorded them pictorially on brown roll paper cut into the shape of an animal skin for the room bulletin board. (Through pictures of cave drawings or an actual field trip to see them, children could view other pictorial symbols.)

C. Introduction of Basic Hand Signals

Children were encouraged to ask questions about the teacher, the classroom, and the school. The teacher, through the interpreter, used the signal for "look." Name tags were available from the bulletin board (i.e., leaf tags hung on a tree motif). The teacher and interpreter introduced the gestures for "yes"and "no." Using hand signals, the teacher and children located each child's name tag. The teacher and/or interpreter asked the children to listen for the attention signal (three hand claps or beats on a drum). She then demonstrated the signals for "assemble," "line up," "stop," "May I speak?", "I need help," "May I help you?", "listen," and "rest" to the children. The teacher used the "attention" and "line up" signals to take the class to the bathroom. The parent aide helped explain the proper use of toilet, washing and drying facilities. The signals for "May I go to the bathroom?" and "May I get a drink?" were demonstrated. Back in the classroom, the games, songs, and fingerplays the children had suggested in the pupil-teacher interviews were performed by the class. They included:

Songs & Fingerplays
- Tribal songs children knew
- Itsy-Bitsy Spider
- I'm a Little Teapot

Games
- Farmer in the Dell
- Looby Loo
- Twinkle, Twinkle Little Star

These activities were enacted first with action only, and then with both words and actions. Teacher or interpreter used the hand signals for "come" to lead the entire group into a follow-the-leader type rhythmic activity. The interpreter gave brief directions and the children mimicked the teacher's actions as she clapped hands to music, clicked her tongue to music, and opened and closed her hands in different positions. A drum was used to accentuate beat. Indian circle dances the children knew were enacted. Other rhythmic activities were tried.

D. Application of Hand Signals

The class was divided into two groups to tour the school. The teacher took one group and an aide took the other to different places. The teacher used hand signals already introduced to conduct this activity. On their return, each group composed and illustrated a chart, in word or picture form, to tell the other group about its trip. On the following day, the groups exchanged routes and repeated the activities. Tours included:

Library
Principal's Office
Speech Therapy Room
Cafeteria
Audio-Visual Room
Furnace Room
Mimeograph Room
Music Department
Auditorium
Attic
Basement

An interpreter accompanied each group and helped students with their charts. Visits to the playground to become familiar with playground equipment were conducted in the same manner, with hand signals and gestures.

E. Picnic

A get-acquainted picnic, organized by parents and including the childrens' families, was held at the end of the week as a culminating activity.

ACTIVITY TWO

REINFORCING THE BASIC HAND SIGNALS

A. Reinforcing the "Greeting" Signal

The students were called individually to trace the greeting symbol on the Signal Code Book page with a crayon. As the student completed the tracing, the teacher demonstrated the greeting signal with him and indicated that the student should demonstrate it to the next student. The last student demonstrated the signal to the teacher.

B. Reinforcing the "Bathroom" Signal

The students were directed to remove the Signal Code Book page depicting the symbol for "bathroom." After tracing the symbol, each child was given a pair of scissors and a magazine or catalog page with a picture of bathroom accessories and directed to cut out a toilet and lavatory. He then glued the picture on the back of his Signal Code Book page.

After all students had completed this activity, the teacher indicated through an interpreter that one student would play teacher while the rest gave the hand signal for wanting to go to the bathroom. The student playing teacher would touch students on the head and indicate yes (nod of head) or no (shake of head). If the student-teacher touched a child on the head and indicated yes, the interpreter explained that the student should walk to the bathroom and back again to his desk. The student-teacher could do this until he was ready to demonstrate no, whereupon the student receiving a no signal would be the next student teacher.

C. Reinforcing of "May I Help You?" Signal

The teacher had a filmstrip projector ready to project light on the wall or screen. The teacher demonstrated the signal for "May I help you?" so the students could see the signal as a shadow. Each child was given the opportunity to do the same. Those not wanting to take part were not urged to do so.

Each child was given a black crayon and the page with the visual image of "May I help you?" from the Signal Code Book. The teacher demonstrated by coloring her page to make the visual image look like a shadow, then indicated that the students could do the same.

D. Reinforcing the "Yes" and "No" Signals

The students were directed to remove the page with the symbols for "yes" and "no" from the Signal Code Book. Each student was given a pair of scissors, some glue, and a piece of foam cut out in the shape of a person. The children watched the teacher cut out the head of the Signal Code Book figure, and they did the same. The teacher next glued the foam to the page and the head to the foam, and demonstrated moving the head to indicate yes and no. The children followed suit.

A puppet was brought out and the students were signaled to be seated in a circle on the floor. The teacher made the puppet nod yes, and indicated for the students to imitate the puppet. She did the same with no, and then handed the puppet to the student seated next to her. Each student had a turn with the puppet while the class mimicked it.

E. Reinforcing the "Stop," "Look," and "Listen" Signals

Students removed the page with the symbols for "stop," "look," and "listen" from the Signal Code Book. The teacher showed how to color the stop sign and cut it out, and then glued it beside the visual image of the nod indicating stop. The teacher colored the eyes of the "look" symbol and the students did the same. The children were next directed to trace the "listen" symbol. Afterwards, they were taken to a street near the school where they acted out the safety rules of stop, look and listen.

F. Reinforcing the "Attention" Signal

The students were directed to take the page with the symbols for "quiet" and "attention" from their Signal Code Books and follow the teacher in tracing the visual image. They were next signaled into line with the teacher as leader, and marched to music from a record. The teacher suddenly gave the signal for "stop" and "attention." Observing the students' reaction to the signals, she sent the first student who stopped to the beginning of the line to be the next leader.

G. Reinforcing the "Assemble" Signal

The students were given catalogs and magazines and directed to cut out several children figures. They were then directed to remove the page with the "assemble" symbol from their Signal Code Books and glue the figures around the visual image symbol.

Next, the students were taken to the gym or playground. The teacher signaled them to form a circle. The group walked in a circle around the teacher, who then gave the signal for "assemble" and explained through an aide-interpreter that when she signaled they should move close and remain there until she jumped into the air. When she jumped, the students were to run to designated bases (safe areas), with the teacher tagging as many as possible before they reached base. Those tagged became helpers, with one student chosen to take the teacher's place. The game continued until all students were tagged. A new leader was chosen and the game repeated.

H. Reinforcing the "Sit Down" and "Stand Up" Signals

The teacher signaled and demonstrated "sit down in a chair" and indicated that students should copy her actions. Next, she demonstrated only the signal, with the students being directed to perform the action. The same procedure was used for "sit down on the ground" (or floor) and "stand up." Through the aide-interpreter, she then directed the students to follow the signals as she gave them in rapid succession, trying to fool the children. As students made mistakes, they moved aside to be spectators. The last one in the game became the new leader for the next game. Finally, the students were asked to remove the page with the symbols for "sit down on a chair," "sit down on the ground," and "stand up" from their Signal Code Book. As the teacher spread glue to cover the visual image on the page, she directed students to do the same. Glitter was added to each student's glue.

I. Reinforcing the "Line Up" Signals

Students were directed to remove the pages with the two symbols for "line up" from their Signal Code Book. Each child was given some yarn, and the teacher demonstrated sewing through the pre-punched holes on the pages. The teacher sewed one image at a time, with the students copying, and they finished by gluing down the ends of the yarn. Each student was then supplied with several objects and asked to watch the teacher's directions for arranging the objects as the various "line up" signals were given--i.e., at the signal for a single line, the students placed their objects in a single row formation on the table. This procedure was followed for each line-up variation.

J. Reinforcing the "Rest" Signal

While a record played softly, the students were directed to rest. Students were then asked to remove the pages with the symbol for "rest" from the Signal Code Book. Through the aide-interpreter, the students were told to pretend that they were resting children, and to make a picture on the "thought bubble" (pointing to illustration) of what they see when they rest. (The record played softly throughout the activity). As each student completed his picture, he was directed to rest until the whole class had finished. Students then shared their pictures with each other.

K. Teaching the Signal for "Good"

Children removed the page with the symbol for "good" from the Signal Code Book, and glued and glittered the visual image on the page.

The students were then directed to respond with appropriate action as the teacher demonstrated several signals from the Signal Code Book. The teacher responded to the childrens' actions with signals for "yes," "good," or "no." This activity was a summary and review of the Signal Code Book as well as reinforcement activity for the signal "good."

L. Mimicking Hand Signals

The teacher divided the class into story groups of no more than six students each. (Ideally, each group would be composed of three boys and three girls of varying abilities.) Each group decided (with some help from the interpreter and/or teacher when necessary) on sentences they wanted to communicate. Consequently, each group made up different picture stories--i.e.,

May I play with you?
I like you.
I am angry with you.
It is my turn.
The teacher wants you.

I can run faster than you.
We work together well.
May I get a drink of water?

Sentences were then recorded by the teacher in stick man, hieroglyphic form. (Teacher reference for writing picture stories in hieroglyphic form--Indian Picture Writing, Robert Hofsinde, Morrow and Co., New York, 1956.) The accompanying hand signals were drawn below each picture. Hand signals used may be a combination of Indian sign language and signals created by teacher and students, using the Signal Code Book as a basis. Signals created by members of the class must have uniform meaning and interpretation.

When each story group completed its handbook, members took turns giving a hand signal and acting out its meaning in a follow-the-leader type game. This game continued until all signals in the book were exhausted. At the end of this activity, the teacher collected the handbook each group had created.

M. Testing Hand Signals

Students were again divided into their story groups. Each group challenged another group to test how well each could interpret the hand signals in the other's booklet. Representatives of each group drew straws to determine which group would be first, second, etc., to give the hand signals. The first group then selected one of the other groups to decode and act out the signals they gave. As skill developed and competition grew, several stories were combined to create and dramatize stories beyond the length of those existing in the hand signal booklets they had created.

When individuals had difficulty giving proper hand signals or interpreting the meaning of a signal, only members of their own groups were allowed to offer help. All directions for helping fellow group members were given non-verbally. Students were permitted to use their hand signal booklet to decode signals into actions and correctly code a signal to be given. The hand signals emitted by the sending group and the acting out of the receiving group were evaluated by the observing groups who non-verbally identified mistakes and called for corrections to be made by the sending or receiving group.

N. Administering the Post-Test

The teacher put the Symbol Card Matching Board on a table. While the students were busy in the various activity centers, she chose individuals to match the cards with the appropriate figures on the board.

LEARNING TO COMMUNICATE

UNIT II: NON-VERBAL TO VERBAL

This nine week unit is designed to assist the child in translating non-verbal communication to verbal communication through drama and pantomime. The child learns about facial expression codes, through acting out stories and discussing them, and by presenting pantomimes and then interpreting them to their classmates.

project NECESSITIES

UNIT TITLE: LEARNING TO COMMUNICATE

UNIT II: NON-VERBAL TO VERBAL

LEVEL: KINDERGARTEN

SUGGESTED LENGTH: NINE WEEKS

OUTLINE OF CLASSROOM ACTIVITIES

Activity Module Number	Suggested Length of Activity	Title and Description of Classroom Activity	Materials for Classroom Activity	Equipment	Narrative detail on page no.
3 A	3 days	Facial Codes Students learned facial expression signals of pleasure or displeasure in response to sensory stimuli, and learned the association between stimulus and facial response. Students drew expressions on faces.	Sensory center - see Draft Outline of Activity 1 A.		33
3 B	2 days	Students learned facial expression signals for surprise, through unexpected situations controlled by the teacher, and drew a facial expression of surprise to insert in their code books.	plastic flower treated with ammonia Velcro patch taped tribal music, with unexpected noise	tape rec.	35
3 C	2 days	Children learned facial expression of fear through magazine pictures. They experimented with monster masks, and added a face to their code books.	magazine pictures of victims and monsters crayons	opaque proj.	36

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OUTLINE OF CLASSROOM ACTIVITIES

Activity Module Number	Suggested Length of Activity	Title and Description of Classroom Activity	Materials for Classroom Activity	Equipment	Narrative detail on page no.
3 D	4 days	Children reflected their own emotions by drawing facial expressions and making up stories about their moods. Stick figures were used to tell their stories.	crayons (chalkboard or flannel board)		37
3 E	3 days	Students created stories and enacted them, using facial codes to portray basic emotions.			37

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Activity Module Number	Suggested Length of Activity	Title and Description of Classroom Activity	Materials for Classroom Activity	Equipment	Narrative detail on page no.
4 A	5 days	Selecting a Story The class was shown films, read stories and legends, and the children saw and participated in tribal dances. Children were then divided into acting groups and asked to pick one story to act out. Each student in the group chose a character to portray.	Suggested Resources Books and Legends Peter and the Wolf The Wizard of Oz Local Indian Legend - **Napi,** The Story of Creation Films Jack and the Beanstalk (10 min) Goldilocks and the Three Bears (10 min) Hansel and Gretel (10 min) Films available from: Bureau Wide Film Service P.O. Box 66 Brigham City, Utah 84302 Recordings and tapes of the above legends or books.	film proj phono tape rec.	39.
4 B	5 days	Rehearsing and Preparing Acting groups worked with the teacher and other members of their casts in perfecting their roles. The actors of each group rehearsed and selected symbols which characterized their roles. They used make-up or drew, colored and cut out paper masks in keeping with their parts.	water colors for make-up paper bags, construction paper crayons scissors glue, tape or staples	—	40

project NECESSITIES

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Activity Module Number	Suggested Length of Activity	Title and Description of Classroom Activity	Materials for Classroom Activity	Equipment	Narrative detail on page no.
4 C	6 days	Final Production and Evaluation Plays were staged in appropriate settings with the teacher taking pictures of students at their most expressive moments. Students evaluated the performances.	Polaroid photos of students	polaroid cmra. opaque proj.	41

project NECESSITIES

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OUTLINE OF CLASSROOM ACTIVITIES

Activity Module Number	Suggested Length of Activity	Title and Description of Classroom Activity	Materials for Classroom Activity	Equipment	Narrative detail on page no.
5 A	3 days	Spontaneous Pantomime A silent film was shown and children tried simple pantomiming. Students were assembled in their acting groups and were read short stories. As they listened, they were to spontaneously pantomime any role they found appealing.	Film: "The Hunter and the Forest" (8 min) Short stories which capture the children's imagination. Suggestions: "Little Black" by Walter Farley, Random House "Are You My Mother?" by P.D. Eastman, Random House "Ask Mr. Bear" by Marjorie Flack, MacMillan A tribal legend from local tribal council or parents.	film proj.	43
5 B	8 days	Creating a Pantomime Acting groups created their own pantomime stories, assigned their own roles, acquired or made props, rehearsed and presented their plays.	Teacher Resource: Pantomime: The Silent Theatre, by Douglas and Kari Hunt, Atheneum, N.Y. 1964 water colors for make-up construction paper glue, tape, staples scissors	—	44

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OUTLINE OF CLASSROOM ACTIVITIES

Activity Module Number	Suggested Length of Activity	Title and Description of Classroom Activity	Materials for Classroom Activity	Equipment	Narrative detail on page no.
5 C	4 days	Interpretation of Pantomime Students discussed the meaning of the pantomimes and examined the devices used to gain dramatic effect. Comparisons were made between the original story recorded by the teacher and the plays, and suggestions made for greater impact. Plays were refined and symbolic intent made clear.			45

ACTIVITY THREE

FACIAL CODES

Rationale:

Once the Signal Code Book was mastered, the dimension of gesture was added. This dimension more deliberately couples hand signs with facial and body expressions. Hand signals are expanded and reinforced as their meanings are emphasized by the humor and drama associated with such words as surprise, fun, comedy, danger, sorrow, strength, etc. Eventually sign language, and hand signals will melt and be absorbed into the art of pantomime.

Reference for the teacher: Pantomime: The Silent Theatre, Douglas and Kari Hunt, Atheneum, 1964.

A. Facial Expression Signals for Taste, Touch, Smell, Hearing and Sight

The sensory center (Activity 1 A) was again set up, and students were allowed to re-acquaint themselves with the materials before the instruction period.

	Pleasurable	Not Pleasurable
Taste	sweet - candy	sour - lemon
Touch	soft - fur	hard - metal
Hearing	soothing - tribal music	loud - dissonance or explosion
Sight	pretty - picture of rainbow	ugly - picture of monster
Smell	nice - flower	nasty - smelling salts

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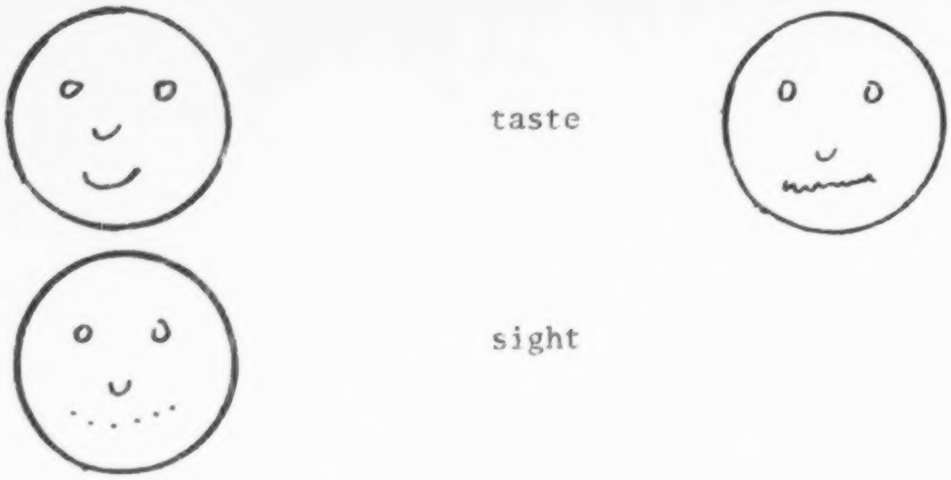
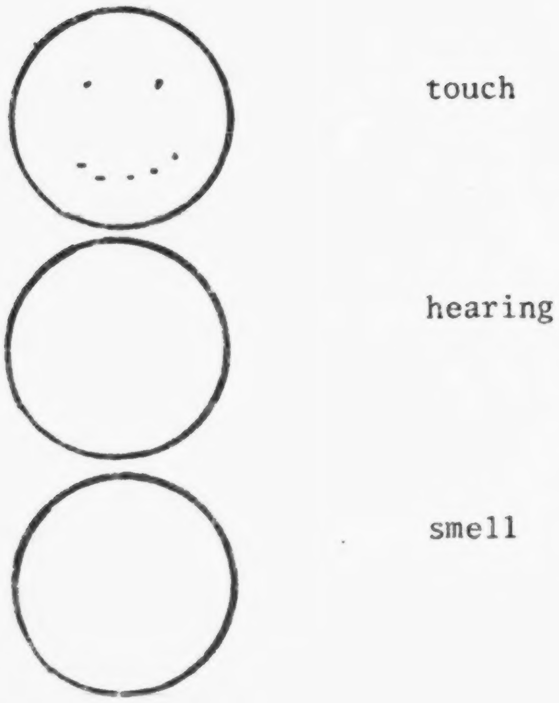
The teacher used established signals to assemble the class and divide the children into small groups. She then dismissed all but one group to their usual classroom activities. The first group gathered around the table.

The teacher gave a piece of candy to one child and the group watched him eat it. She encouraged facial expression, and acted along with the child. One by one, this procedure was repeated with the whole group. She next held a piece of candy in front of each child and the group, and they acted out taking and eating the candy as before.

Finally, the teacher distributed a stick picture of people eating candy, with a drawing of a code face underneath . The children colored and put the drawing in the code book.

The teacher repeated this process with the other groups, and on succeeding days covered the other four senses. As the exercises progressed, the code faces were less predrawn, allowing the children more latitude for expression. Below are examples of the progressively blank faces used in the code book. The order in which the five senses were introduced varied from classroom to classroom.





B. Facial Expression for Surprise

The teacher used the signal for "listen" and then played a piece of taped tribal music which the children had heard before. In the middle of the tape, the teacher had added an unexpected noise. The whole group showed surprise in some manner. The teacher picked the predominant expression of surprise and demonstrated it.

She then used surprise sensory experiences in small groups. She had the children smell a plastic flower which had been treated with ammonia, and the groups touched a patch of Velcro, which looked soft but was hard.

When the entire class was assembled again, one child was directed to leave the room. While he was gone, the class planned how to greet him in a surprising manner on his return--i.e., all applauded or booed or cried. Each child was surprised in a different way. The teacher encouraged the "surprise" expression.

Finally, the teacher left the room and the class set up a situation to elicit the surprise code expression from the teacher.

The teacher distributed a picture with a blank face, and the children drew in the surprised expression and added this to their books.

C. Facial Expression for Fear

The teacher used an opaque projector to show pictures which were collected by students from a horror magazine. Each picture illustrated the expression of fear on a potential victim's face. One student in each group was then asked to show a facial expression of fear when responding to a picture in which only a monster, poised to attack, was shown. Other members of the group observed the student's faces when the teacher flipped on the projector to show an oversize, horrifying monster. After each child in the group saw a different picture and registered fear, the children drew a frightened face for their code books.

Concepts of anger, sadness, happiness, etc. were illustrated in various ways--i.e., the teacher asked students what things made them angry, happy and sad. She drew various expressions on the board as the students suggested them. Magazine pictures were also useful tools. One by one, the students made facial expressions for their code books.

D. Discriminating Between Facial Expressions

At the beginning of the day, the children were given a circle and asked to draw a face showing how they felt that day. Then they explained why they felt as they did. (This could be done as a blackboard activity or on a flannel board, with the children picking out "happy eyes," "a sad mouth," etc.)

The teacher then drew various facial expressions on the board, and the children were asked to select a face that showed sadness, happiness, fear, anger, etc.

The children were next encouraged to make up a story about why they felt happy or sad, using stick figures. The teacher assisted as needed.

E. Portraying Basic Emotions

Students in small groups were shown pictures portraying basic emotions such as fear, anger, and happiness. As each picture was shown, the teacher or interpreter asked the students to make up a story about the picture. The story was verbal and told by the student in either English or his own language. Each student told a story and was then asked to act out the feelings (happiness, anger, fear, sadness) of the people in his story. (The story should include a sequence of occurrences which led to the emotional state depicted.) Students were asked to write their stories in picture form, using stick-man drawings showing emotion through both body positions and facial expressions.

After all students had performed the above tasks, they repeated the process in the following way. Instead of being shown a picture to react to, each student was asked to act out a very short and simple story he made up to dramatize such words as: surprise, danger, strength, weakness, etc., as a climax.

Example:
1. My horse is strong. He carries me on his back.
2. When a horse trips and falls, the rider and horse are in danger.
3. A man is smaller and weaker than a horse.

becomes....

A boy was riding his horse. His horse fell on him. The boy was surprised. The boy was weak and could not move the horse. A man pulled the horse away. The man was strong. The horse was big and heavy. When a horse trips, the rider and horse are in danger.

After each student had acted out a story, each group selected its best story. All group members contributed in writing a picture story expressing key emotions and situations. The entire class then selected the best story of all, and this story was acted out with appropriate dramatic effect. Emphasis was placed upon showing emotions, strain and interaction through body and facial expressions. At this point, hand signals were not emphasized, but they were not discouraged as a vehicle for communicating.

ACTIVITY FOUR

STORY TELLING THROUGH HAND SIGNALS AND GESTURES

Rationale

Students have now had an opportunity to create and picture-write simple, short stories which they have acted out through hand signals. They also contributed to a short group production. This activity represents a concentrated transition from hand signals to pantomime through the intermediate stage of gestures.

A. Selecting the Story

Children were told to watch the presentations and pick a story, and then a character in the story, to portray. They were shown films and read stories of imaginative adventure in both English and their Indian language. They also heard recordings of the same stories and films, and were told local tribal stories and legends. Films of tribal dancing were shown, and the class participated in parentally-directed dances (Stomp Dance, Rabbit Dance, Omaha Dance,the 49, etc.). As they were being exposed to the stories and legends, children were reminded to focus on a character which appealed to them and point out expressions of excitement, suspense, comedy, tragedy, and so on in the actor's portrayal. Children could not decide on the character they wished to play until all presentations were made. Students were then divided into groups, according to which characters they chose to portray. (English-speaking students could participate in this activity by appointing a student as the story-teller.)

Films were shown a second time, without sound, so students could study actions and expressions in critical scenes. Legends were acted out by members of the Indian community, and taped stories were re-played for further study.

Note: Students should have alternative choices of roles to avoid conflicts when bidding for the leading parts. There must be a sufficient number of plays to provide each student in the class with an acting part. Consequently, as many as three or four productions may be organized and rehearsed at the same time. Each production consists of an acting group, and the size of the groups vary according to the number of acting parts in the play.

B. Rehearsing and Preparing

The teacher, interpreter and parents served as directors and helped organize the production efforts of students. Each production was to be non-verbal. Gestures and hand signals were to be used exclusively. In preparing for their parts, students reviewed parts of the films, books or tapes with a director in order to work out gestures and signals which emphasized a situation or set a tone for each scene. Members of the cast then began working with each other to perfect individual scenes and iron out the play as a whole. During this process, the actors' imaginations were focused on the selection of objects (props), masks, make-up, scenery, lighting, music, etc., which would help the audience interpret their roles. Because each production required the attention of a director, acting groups were helped one at a time. While directors were organizing and rehearsing one group, the members of the other groups prepared background scenery with butcher paper, crayons, glue; reviewed tapes and films; selected and constructed symbolic objects, masks and make-up needed by each character in the play.

Dress rehearsals were held in isolation so that none of the other groups (the audience) saw the play and its effects prior to its formal presentation in class. Each play was presented when students felt they were ready.

C. Final Performances and Evaluations

After dress rehearsals were perfected to the satisfaction of directors and members of the acting group, an area was selected by the group and reserved for the showing. (The reserved areas can be outdoors, another classroom not in use, an auditorium, an amphitheatre, community park, etc.) Presentations were not given in the kindergarten class because it was felt that the setting should complement the plot of the play and set an emotional tone for acting.

Examples - "Peter and the Wolf" for the most part required wooded outdoor scenes

"Goldilocks and the Three Bears" required indoor scenes with a rustic background

Tribal legends needed a combination of indoor and outdoor scenes, with the majority outdoors

The play was presented non-verbally to the audience. During the production the directors took Polaroid photos of students at their most expressive moments. Immediately following the play, the teacher used the opaque projector to show the pictures. These photographs were useful to both actors and audience in evaluating the performance in terms of adherence to story line, creative adaptations of the original tale, style, and general effectiveness.

Questions used to stimulate evaluative responses followed these lines:

What was the story about?

What was the funniest part of the story?

What was the frightening part?

Who did you like the best?

Who made you laugh the most?

Who frightened you the most?

How and why did he frighten you?

Was this play like the story it was taken from?

How was it different?

Which version do you like best?

After the review and evaluation of each play, the photos were displayed in the classroom as a picture story of each production.

ACTIVITY FIVE

PANTOMIME

Rationale

During the rehearsal, performance and evaluation of the previous plays, emphasis was placed on the use of hands, face, arms, bodies, legs and feet in expressing emotion. These expressions are now to be further refined by allowing students to spontaneously pantomime short stories and then create their own pantomimes.

A. Spontaneous Pantomimes

To reinforce the effectiveness of stories told without the use of words, a film entitled "The Hunter and The Forest" was shown. Afterwards, assembled in their acting groups, students discussed how expression, music and motion combine to relay meaning and moods. The teacher led this discussion into a short demonstration of pantomime by asking volunteers to give their impressions of a leaf falling to the ground, of a short, round flower bowl, of a blade of grass waving in the wind, etc.

Next, group members were told they were to react spontaneously to any role they wished to pantomime while the story was being read. A total of three animal stories and one Indian legend were read to each group. After the stories and pantomimes, the impressions created by the actors were discussed to point out the strengths of each volunteer performer.

B. Creating and Presenting a Pantomime

Note: In order to help students, the teacher and interpreter are urged to review highlights from Pantomime: The Silent Theatre by Douglas and Kari Hunt.

Students were again assembled into acting groups with the assignment of working together to create a story to pantomime. A maximum time limit of 10 minutes was set for each presentation. Students were to create a plot and enough roles to include all group members. They were to agree on the story sequence, assign acting parts and verbally present the pantomime to the teacher, who would record it in writing for the group's future reference.

Each acting group then refined their pantomime roles and acquired or constructed props. Make-up, masks and special effects were used to enhance their presentation. (The kind and number of special effects were determined from the needs which arose during rehearsals. Since the gestures, costumes and symbolic objects were useful in interpretation of the play, the teacher encouraged their extensive, but appropriate, use.)

As before, plays were presented when groups felt they were ready. Appropriate sites complementary to the plays were again sought and used.

C. Interpretation of Pantomime

After each presentation the audience, composed of the other acting groups, was asked to interpret the play. They were asked to identify triggering devices (tones of music, the use of objects, costumes, signs, and so on) which served as clues to whether the scenes would be light comedy, heavy drama, or suspense, or devices which established background information for a later climax, or a combination of these. Students discussed how symbols, gestures, scenery, lighting and music blended to produce the impact which was the meaning of each play.

The teacher then read the story to the audience as it was originally dictated to her by the group. Comparisons of the verbal description and student interpretations of the play were made. The audience and the teacher both suggested ways to make the pantomime close to the intent of the story, and the players tried out the suggestions before the audience. The teacher, audience and actors, through the interpretation process, helped refine and perfect the symbolic intent of the pantomime.

LEARNING TO COMMUNICATE

UNIT III: VERBAL TO SYMBOLIC

This six week unit moves the student from gesture and word to symbol. Using pictographs, a teacher prepared booklet, a study of animal tracks the students move to making their own name using the geometric shapes: square, circle, triangle, rectangle. The Project's Symbol Formation book with its stencil of these shapes is used for this activity. The children have learned to "write," using their own code symbol system. In the next unit they will translate this into letter and number symbols.

project NECESSITIES

UNIT TITLE: LEARNING TO COMMUNICATE

UNIT III: VERBAL TO SYMBOLIC

LEVEL: KINDERGARTEN

SUGGESTED LENGTH: SEVEN WEEKS

OUTLINE OF CLASSROOM ACTIVITIES

Activity Module Number	Suggested Length of Activity	Title and Description of Classroom Activity	Materials for Classroom Activity	Equipment	Narrative detail on page no.
6 A	4 days	Verbalizing The Pantomime Students gave verbal expression to the gestures of pleasure, joy, anger, fear, surprise, suffering, kindness, etc. and arranged to show their pantomimes to other kindergarten classes.			50
6 B	2 days	Presentation and Awards Both the pantomime and the dialogue version of the plays were presented, and the audience selected its favorite version. When all plays had been completed, the audience again picked its favorite and teacher, interpreter and parents picked the play closest to its pantomime version. Awards were made for enough categories that all acting groups received recognition.	certificates listing award and group members	tape recorder.	51
6 C	7 days	Symbolic Writing of Class Productions Groups drew their verbal pantomimes, scene by scene, in hieroglyphic form on rough paper, and, if they were able, used a limited numbering system to keep their work in order. They then transferred this rough work to scrolls which the teacher had helped them make. Scrolls were exchanged, and each acting group read another's story from a scroll to the class.	Teacher Resource: Indian Picture Writing, by Robert Hofsinde (ISC) 3/4" by 11" wooden dowels bookkeeping machine paper 9" wide staples sheets of rough work paper pencils tape		51

project NECESSITIES

UNIT TITLE: LEARNING TO COMMUNICATE

UNIT III: VERBAL TO SYMBOLIC

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OUTLINE OF CLASSROOM ACTIVITIES

Activity Module Number	Suggested Length of Activity	Title and Description of Classroom Activity	Materials for Classroom Activity	Equipment	Narrative detail on page no.
7 A	3 days	How Signs Tell Stories Students studied the booklet "Signs and Picture Stories" and presented a story they had understood through the book's signs. Students learned that man is not alone in using signs to communicate--nature and animals use signs too, and they were given examples of animal and nature signs.	Booklet: "Signs and Picture Stories" (Teacher prepared--see narrative)		54
7 B	7 days	Animal Tracks and Names Students studied the booklet "Animals, Their Tracks and Signs" and learned how animal footprints tell us things about the way they live or the jobs they do. Examples were given. Students played a matching game with animal footprints and pictures of animals.	Booklet: * "Animals; Their Tracks and Signs" classroom and childrens' pets ink, stamp pad construction paper animal pictures *Available from I.S.C.		56
7 C	5 days	Choosing a Sign - Part I Students were given the Symbol Formation booklet and allowed to explore it for several days. Then the children used the stencil to make a shape that represented their name. They learned their own shape and at least two other children's.	Symbol Formation booklet		57

project NECESSITIES

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OUTLINE OF CLASSROOM ACTIVITIES

Activity Module Number	Suggested Length of Activity	Title and Description of Classroom Activity	Materials for Classroom Activity	Equipment	Narrative detail on page no.
7D	7 days	Choosing a Sign - Part II Students were given cards with geometric forms of the letters of their names drawn on them. They cut them out, and arranged them until they had a symbol they liked. This symbol became their "name". Students then played games to help them learn other children's signs as well as reinforcing identification of their own name symbol.	cards with shapes drawn on scissors 3 x 5 cards pencils glue	opaq proj Pol. Cam.	58

ACTIVITY SIX

VERBALIZING

Rationale

Most of the preceding activities emphasized the development of nonverbal and symbolic means of communication. The insights and skills developed by students will now be synthesized as pantomimes are given dialogue to describe behavior. ("I am cold and hungry when I look through a restaurant window.") Lines are spoken as their meanings are acted out by gesture. ("I wish I had something hot to eat.") The role of special effects, music and objects in adding impact and revealing dramatic intent is analyzed.

A. Verbalizing the Pantomime

Acting groups reconvened to add dialogue to their pantomimes. Rehearsals emphasized verbal expressions of pleasure, joy, anger, fear, surprise, suffering, kindness, etc. Objects, make-up, costumes, music, scenery and other special effects were revised or substituted by the cast according to the previous suggestions from the audience. Dress rehearsals were held until the acting group and its directors (teacher, interpreter or parent) felt the meanings and pronunciation of words complemented the accompanying gesture.

When all was ready, a delegate from the acting group arranged to show the production to another kindergarten class in the school. Again, an appropriate site for the verbal pantomime was chosen.

B. Presentation and Awards

A delegate from the group introduced the play and explained that it would first be presented in pantomime and then with dialogue. The audience was to choose the version they enjoyed most and explain why they enjoyed it. The teacher taped the dialogue version of each group for comparison with later efforts.

Then, after all acting groups had given their presentations, the audience selected the best all-around play. Teacher, interpreters and parents also selected one play, according to the consistency between both versions of the same play. Sufficient awards were assigned to insure that each acting group received recognition for their creative and acting strengths. Awards were written certificates describing the activity and listing the children who participated. For example, there was an award for the best pantomime, for special effects, for make-up, language use, and so on. The awards presentation was a practical climax to the series of activities experienced to date.

C. Symbolic Writing of Class Productions

Note: Teachers may wish to refer back to Indian Picture Writing by Robert Hofsinde.

The teacher and students constructed a scroll on which each acting group would write its story. Groups were given two dowels (3/4" thick by 11" long) and approximately ten feet of bookkeeping machine paper (nine inches wide). As the paper was measured from the machine, the ends were stapled to the dowels so that one inch of dowel protruded from each side of the paper. The paper was then rolled from the left to the right dowel so when the students began drawing hieroglyphics, they could be written in picture sequences from left to right.

Before trying the scrolls, each group was given enough drawing paper to work through its ideas in rough form. Picture drawings at this stage should form a sequence. In some cases, sequencing required the development of an accounting system by each group. The teacher reviewed with individual groups a system to keep their work in proper order. Some students who had limited knowledge of number concepts were assisted by the teacher in showing other group members how to apply these concepts (1-3, 1-5, 1-10). Other students could simply tape their drawings so that sequence and order were maintained.

Once a group understood and applied an accounting system to their work, they began to break stories down into scenes. They decided how to symbolize each scene and record the events in hieroglyphic picture drawings. In its final form, the rough draft consisted of a series of drawings illustrating their award winning play in such a way that other acting groups could interpret the plot and main events of the story.

Only after rough drafts of picture stories reached this stage of development were they reproduced on the scrolls.

When each group completed its scroll, the scroll was exchanged with another group. The receiving group then read the story from the scroll to the other groups, who served as the audience. After all scrolls were read, one was selected to be displayed on the bulletin board.

ACTIVITY SEVEN

SIGNS

Rationale

Students have progressed from a non-verbal to a verbal stage, and are now preparing to move into a symbolic stage through the medium of signs.

A. How Signs Tell Stories

The teacher divided her students into groups and worked with one group at a time. Each student was handed the previously teacher-prepared booklet "Signs and Picture Stories." The teacher had drawn and dittoed this booklet to coincide with the examples used in this activity (trees, men, animals.) She had used material from the local environment that was familiar to the students. Students were told not to speak to each other, but to communicate by using hand signals. The teacher herself relayed this message non-verbally.

She signaled that they were to read the signs in the picture book. Each student made his presentation by combining words and pantomime to tell and act out the story. After each member of the group had given his interpretation of the story, the teacher asked the group to explain the signs on each page that told them what was happening in the story. Comparisons were made to check the consistency of each interpretation. If misinterpretations occurred, they were corrected with the assistance of group members and the teacher.

At this point, the students were told that while man communicates through signs such as sign language, pantomime, writing and drawing pictures, he is not alone in using signs to communicate. Nature and animals also communicate information about themselves through signs. One must, however, learn how to read the signs of nature, man and animals in order to understand what they are saying.

Examples of signs are:

1. Trees grow straight and tall on the foothills and in the valley. Only at the mouth of a canyon do trees grow at a slant pointing away from the canyon. Trees that do not grow straight are telling us that even though there are no winds during mid-day, there are strong winds that blow late in the evening. These trees also tell us the direction in which the wind blows and that too much wind is not good for them because they do not grow tall and healthy.

2. When man has a message to tell, he uses the signs in the alphabet, a, b, c, d, e, called letters. When he combines certain messages so that other men who know how to use letter signs can read and understand what he has written.

3. Animals also tell us about themselves. Their tracks are signs that say who they are, what direction they travel, where they like to live (near water, in valleys, in wooded or desert areas

or in the mountains) and if they sleep (hibernate) in the winter.

Nature, man, and animals all have signs that we can use to better understand what they tell us about themselves.

B. Animal Tracks and Names

Instruction was again conducted in small groups. The teacher handed out the booklet "Animals, Their Tracks and Signs." Students were told that they could soon learn to create a sign to represent them, just as an animal's footprint is symbolic of his name.

All communication was conducted verbally. The teacher read the booklet story to the group and students followed the sequence of illustrations. A discussion was then held to review the characteristics of animal tracks and signs. Children were told that an animal footprint often indicates how he lives. For example, if animals and birds spend much time in water, they usually have webbed feet. To illustrate this point, comparisons of birds (crow and duck) and animals (badger and beaver) were made. A crow spends much time perching on branches or looking for food on the ground. His feet are not made so he can paddle his way across a pond. By comparison, a duck would have trouble wrapping his feet around a branch to perch. Both the badger and the beaver have claws to dig with, but the beaver has webbed feet which act as paddles to push him through the water. The duck and the beaver have webbed feet although one is a bird and the other an animal. The footprints of a duck and a beaver look more alike than those of a crow and a badger because of the places they live.

At this time, the teacher pointed out that people are often named for the work they do. For example, in England people who made clothing were given the last name of "Taylor." A clan of the Navajo tribe tended large herds of goats, and this clan was named "Many Goats."

To reinforce the concept that an animal footprint is symbolic of both his name and signature, several classroom and home pets (cats, hamsters, white mice, guinea pigs, canaries, etc.) were assembled in the classroom. The feet of the animals were pressed lightly on an ink stamp pad and then pressed on a piece of construction paper. Students were then presented with pictures of these animals. The pictures and footprints were shuffled and laid out within easy reach of all group members. The group then played a matching game in which one student asked another to match up pictures and prints of a specific animal. The game was played until each member had successfully named and matched the prints (signature) and pictures of each animal.

C. Choosing a Sign - Part I

This activity is the forerunner to letter recognition and writing. In the first part of this activity the teacher passed out the Symbol Formation booklet without any instructions and allowed the children to do whatever they wanted with them. Some children traced the symbols on pieces of paper the teacher had tucked into the booklet. Others tried to reproduce some of the objects in the booklet. One enterprising student actually attempted scale drawing. of a pickup truck. At the end of each activity the teacher had one of the children collect the books and return them to her desk.

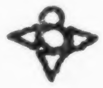
After several days of exploration the teacher asked the children if they would like to make their own shape to represent their name. Each child worked on several combinations of the four basic geometric shapes until he had one he was satisfied with. The students then spent several days learning at least two other children's symbols so that they could pick them out from the whole classes symbols posted on the bulletin board.

D. Choosing a Sign - Part II

Note: Before the class, the teacher selected the geometric shapes most closely related to the actual letter configuration in a student's name.

The teacher divided the students into small groups, and gave each student a piece of card stock with their basic shapes drawn on it. The students cut out the shapes and were told to play with different combinations.

The teacher divided the students into small groups, and gave each student certain geometric shapes to arrange. (For example, she gave Sam two circles and three triangles. In future activities, Sam would use the two circles to form an "S" (8). One of the triangles will make the "A" (△). The other two triangles will be combined for "M"

(ΔΔ). At this point, the students arranged their shapes in any design they liked, as long as it was different from those of the other children. The teacher recorded the signs for future identification of student work. Sam decided that this design () would represent him.

A game was used to reinforce identification of the child's sign as well as those of the rest of his group. Each student traced his sign onto a 3"x 5" card. All cards were put into a container and shaken, and the teacher took one card out and identified the child it belonged to. After a short time, the children could identify each others' signs.

The game was then expanded to include one group competing with another in learning each others' signs. The opaque projector was used. The student whose turn it was to select and identify a sign projected the card so that all members of the class could identify the sign. Signs would now be used by students and the teacher to label personal property, sign paperwork, indicate helping assignments on charts, etc.

As a conclusion to the activity, a Polaroid photo was taken of each child in the class. The photo was pasted on a card and students drew their own signs next to the photo. All cards were displayed on the bulletin board.

LEARNING TO COMMUNICATE

UNIT IV: SYMBOL FORMATION

The final unit of the year is scheduled for nine weeks. An Animal Alphabet is used to assist student in becoming familiar with letter-word shapes that are part of the object they identify. They rearrange their name symbols into the pattern that duplicates the letters of their names. Letters for words, and numbers are introduced to end the year.

project NECESSITIES

UNIT TITLE: LEARNING TO COMMUNICATE

LEVEL: KINDERGARTEN

SUGGESTED LENGTH: WEEKS

OUTLINE OF CLASSROOM ACTIVITIES

Activity Module Number	Suggested Length of Activity	Title and Description of Classroom Activity	Materials for Classroom Activity	Equipment	Narrative detail on page no.
8 A	3 days	Animal Configuration and Discrimination Students matched silhouettes of animals with drawings in the Animal Alphabet book and used the four basic geometric shapes to symbolize the block configuration of animal shapes.	Animal Alphabet book construction paper scissors glue crayons		64
8 B	7 days	Animal Names Presentations were made about the animals the children had chosen to study, and children then collected pictures and made books about these animals. Children imitated animal noises and behavior, and used the opaque projector to tell the rest of the groups about the animal they had studied. Children discussed nicknames for people and animals.	animal films, stories, slides magazines, newspapers, etc. scissors glue construction paper string, ringlets, or looseleaf binders tapes of animal noises	film proj. slide proj.	66
8 C	8 days	Silhouette Puppet Play Story groups created plays characterizing the animals they had studied and contrasting these animals with one from a previous activity. Groups made silhouette puppets and scenery, and used various techniques with the overhead projector to simulate background motion and character activity. After discussion and evaluation of the presentations, the teacher told how climate can determine the way people (as well as animals) live and are classified.	9-inch bookkeeping machine paper pencils, grease pencils plastic transparency rolls & 8 1/2 x 11 sheets construction paper scissors glue globe or map of the world	opaque proj. overhead proj.	68

project NECESSITIES

UNIT TITLE: LEARNING TO COMMUNICATE

LEVEL: KINDERGARTEN

SUGGESTED LENGTH:

OUTLINE OF CLASSROOM ACTIVITIES

Activity Module Number	Suggested Length of Activity	Title and Description of Classroom Activity	Materials for Classroom Activity	Equipment	Narrative detail on page no.
9 A	10 days	Using Basic Shapes Children named four geometric shapes and discerned shapes in everyday objects. On field trips to a local village and city, they named shapes they saw around them. Students made collages of their environments by using geometric shapes.	white construction paper scissors Symbol Formation booklet (PN) cup large sheet of butcher paper colored construction paper glue pencils		73
9 B	18 days	Signs are Signatures Children were shown how their signs could be rearranged to become the letters of their first names. Several games were played to reinforce each child's awareness of this new ordering. The child formed his name in cookie dough, traced his name on a sheet of paper, and learned to spell the names of others in his group. Through inter-group competition, children learned to spell and write each others' names.	chalkboard, chalk grease pencils transparency sheets block letter stencils sugar cookie dough plastic knives wax paper pencils colored construction paper scissors white paper	over-head proj.	75

project NECESSITIES

UNIT TITLE: LEARNING TO COMMUNICATE

LEVEL: KINDERGARTEN

SUGGESTED LENGTH: WEEKS

OUTLINE OF CLASSROOM ACTIVITIES

Activity Module Number	Suggested Length of Activity	Title and Description of Classroom Activity	Materials for Classroom Activity	Equipment	Narrative detail on page no.
10	1 days	Counting, Writing and Naming Groups competed with each other in naming objects in their environments. A numbered chart and a point system were used, and children were required to keep track of their total points. Children also used potter's clay, construction paper and number games to reinforce numeral identification.	magazines and newspapers scissors white paper and pencils white construction paper for chart colored vinyl, straight pins potter's clay blindfolds glue, sand 3 x 5 cards numerical matching board		79

ACTIVITY EIGHT

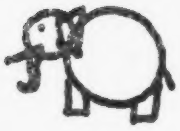
ANIMAL FORMS AND NAMES

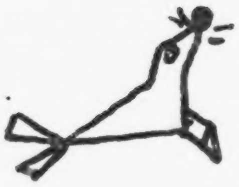
Rationale

Students have already used geometric shapes to design their signs. They will now discriminate between colors, construct abstract replicas of animals from realistic models, and identify features of animals which are more representative of one geometric form than another. Before making the transition from the abstract relationship between geometric configurations to the letters of each student's first name (and finally to configuration of the name itself), animal names will be used to demonstrate that names have symbolic meaning.

A. Animal Configuration and Discrimination

Each small group was given an Animal Alphabet book from which students selected five animals they liked. Student attentions were focused on the basic shapes of these animals as students compared them with circles, squares, triangles and rectangles. Holding up a square in one hand and a circle in the other, the teacher asked if the picture of the elephant looked more like this shape (square) or that shape (circle). After each group responded correctly, the teacher asked the students to cut out geometric shapes (small circles, rectangles, etc.) which would help animal shapes look more like themselves.





They then pasted the shapes on the basic geometric forms.

To color them, students had to name the colors they intended to use. Example: "Now that your animals are cut out and pasted, what color will you use?" Response: "Yellow with green dots." The teacher held out the crayons and asked, "Can you point to the yellow crayon?" "Can you point to the green crayon?" "What color will you make the dots with?" Response: "Green." The children then took their crayons.

When each group had finished making their sets of animals, the instructor passed out realistic silhouette shapes of the animals the group was working on. Children then were asked to match their own geometric animals with the realistic silhouettes. After each member of the group had completed the task successfully, the matching game expanded to include other groups and eventually, all of the class. The group which matched up the animals with the fewest errors was declared the winner and allowed first choice in selecting an animal to learn more about. The second-place group got second choice, and so on, until each group had chosen one animal to study.

B. Animal Names

Groups were asked to collect pictures of the animal they had chosen to study in the previous activity. The pictures were to tell something about the animal, and would be organized and made into a book. Before students began collecting their pictures, short stories were read to them, films and slides were shown, and local tribal legends were told by parents to give background information and demonstrate that animals are named by the way they look, act, or do things. (The analogy was made in a previous activity that individuals are often categorized and named by the way they look, act, and do things.) This background helped students identify what they were to look for when collecting pictures. All material collected had to pertain to the specific animal being studied by each group.

Students began by collecting pictures from old magazines, newspapers, etc. Pictures were grouped according to the type of information they contained. If the animal was pictured in his natural habitat, this picture would be placed in a habitat section. There were a minimum of four sections--appearance, habitat, habits, and food. Students were required to collect one section at a time and in the above order. (For example, in Section 1, which dealt with the physical appearance of the animal, subsections consisted of pictures of body shape, color, tracks, paws and claws, eyes, nose, ears, mouth, tail, etc.)

As pictures were collected, they were pasted on colored construction paper, and, if the children wished, each section was color coded. The last section could be a mix of any of the previous colors, but children were expected to name the color they wished to paste their pictures on. Each of the four or more sections was given a cover page, and when the book was completed the pages were punched and a cover was designed, drawn and colored by the group, with each member affixing his sign as co-author. Books were bound either by ringlets or string, or placed in a large-ring loose-leaf.

Each group displayed its book and the students explained that the sections and sub-sections of the book showed why animals were given their names. Students imitated the sounds animals make, and gave very brief pantomimes of the animal's behavior. (For children who would not imitate animal sounds, the teacher played tapes or records of animal sounds and asked each child to identify the correct animal.)

Each group assigned its members to present subsections or sections of the book using the opaque projector. Students projected and described pictures that illustrated the unique physical characteristics of their animal. Information was also given concerning habits, habitat and food preferences. Children summarized each presentation by emphasizing the features for which the animals had been given their common and local name. For example, a common name is Raccoon, but the local nicknames for the same animal are coon, bandit, and ringtail. The teacher explained that people also had nicknames. These were given to individuals by their families and friends. A nickname for Robert is Bob, and for Henry is Hank. The presentation ended with the students telling the class their Indian nicknames, the Indian name of the animal they had studied, and why Indians called the animal that name.

C. Silhouette Puppet Play

Each group composed a story characterizing the physical strengths and weaknesses (for example, intelligence, good eyesight and courage, but poor hearing, little strength and fragile physical stature) of the animals they had studied. Also included in the story was a character selected by the group from one of the stories or legends introduced during Activity Four. (Selection should be based on conflicting habits, values, and temperaments. For instance, "The Beaver" was the name of one picture book compiled by students, and the contrasting character they selected was the Wolf from Goldilocks. Students created a domestic scene in the life of a beaver family, describing highlights from their books in the realm of conflicts, life cycle, and survival instincts which drive the beaver to use existing resources to create an environment more suitable for him. By so doing, he changes the ecology of the land around him and provides other animals with compatible environments from previously unsuitable ones. The beaver was then characterized as a contributor, a constructor, a provider and an overseer of the land he had modified. To help other students understand his habits, appearance and personality, the students described methods by which the animal builds and maintains dams, defends himself against enemies, sounds warnings to others, builds his house, tends his young and eventually forces the young to leave home and pioneer other communities.

The Goldilocks plot was used after students had established the beaver in his home and environment, with the wolf symbolizing deception and cunning as opposed to the beaver's industrious, constructive character.

In order to convert the story to a play, the plot was drawn or traced in sequence and divided into acts. This was done on 9-inch bookkeeping machine paper. Students then drew, cut out and pasted silhouette puppets of the main animal characters of the play. Silhouettes of background (homes, habitat, etc.), animal tracks and signs could be drawn or traced with a grease pencil on clear plastic rolls for use with the overhead projector. (When the roller is turned, the scenery moves across the screen.) Silhouettes sequentially representing live animals were pasted to fairly stiff strips of clear plastic from 8-1/2 x 11 inch transparencies. These holders allowed students to manipulate character silhouettes on the screen without the visual intrusion of opaque attaching devices. By using these techniques, students gave motion to an otherwise static medium. A combination of winding and silhouette manipulation created the effect of an animal working, digging, jumping, running, or swimming in and under water. Colored grease pencils were used to outline scenery, tracks, etc., but only when students could identify the colors they wished to use.

Each group assigned roles to individuals and words to their plays. Plays were presented to the class, and tape recordings were made of each group's dialogue during the performance. These tapes were later played back and compared with those recorded in Activity Six B to help groups evaluate their own progress in vocabulary, articulation of words, appropriate use of words, length of production, the amount of information given in each recording and feedback from the audience.

Because the teacher had helped all the groups prepare their plays, she was aware of their contents, and had formulated questions to encourage students to draw analogies between the behavior, personalities, environmental situation and circumstances of animals in the play with people in real life. These questions were asked of both performers and audience at the conclusion of each play. Questions about the beaver-wolf play were:

1. Name all of the animals in the story
2. What animal helped others in the story?
3. How did he help other animals?
4. Which animal would you trust?
5. Why would you trust him?
6. Which animal wouldn't you trust? Why?
7. Can you think of a person who helps other people? How does he help them?
8. Can you think of a person who cares only about himself?
9. Do you act like a beaver or a wolf?

10. Are you sometimes helpful?

11. Are you sometimes selfish?

12. Can you see a little of the beaver and wolf in your own behavior?

13. Are you mostly a beaver? Why?

14. Are you mostly a wolf? Why?

15. Give the wolf and beaver nicknames. What will you call the wolf? Why? What will you call the beaver? Why?

The teacher pointed out that people are also classified by color and behavior. She illustrated this point by using a globe or map of the world to explain that there are five races. People have different skin colors and individuals are identified by their color. Indians are called red men and are natives of the Americas. Negroes are called black men and were originally from Africa. White people came from Europe, yellow people from Asia, and brown people from India.

No attempt was made to have students name or identify the lands from which races originated. The teacher simply showed that the earth we live on has some places which are very hot most of the time, some places which are very cold most of the time, and some which are hot during one time or season and cold during another. Students were told that people in hot lands rest and do little work during the day, and that most work is done early in the morning or late in the evening when it is cool. In very cold places, work is done during the sunshine periods when it is warmer, and the people rest during early morning and late evenings. In places where the heat and cold are not severe, people can work both day and night. If these people were to visit the very hot land during the day, when people rested, they might think that these people do little work and prefer just to sleep.

The teacher explained that because of seasons and climates, certain people are noted by their habits--i.e., the Spanish have a siesta, the English their tea time, etc.

ACTIVITY NINE

GEOMETRIC SIGNS BECOME NAMES

Rationale

The last three activities were designed to relate animal signs, geometric shapes, student signs, and the symbolism and behavior by which things are named or are known. Until now, little direct effort has been made to have students name the four basic geometric shapes, although much indirect assimilation has occurred. Students will now name the various geometric shapes and rearrange their signs into the letters of their first names.

A. Using Basic Shapes

The teacher worked with groups of five. A semicircle was formed and four geometric shapes of white construction paper were laid on a table. Students were told to pick a number from one to five, and the one who guessed the number the teacher had fixed in her mind had first choice at naming one of the shapes. Because of previous activities, children had little difficulty in naming and drawing each of the basic shapes. Each child was asked first to point to the shape and then name it. When correct, he could go on to the others until he had identified all four. He then picked the child who would follow him. When mistakes were made, only the student who had selected him was permitted to help. After correcting his mistake, the student was asked to name three things which looked like that shape. Once he had done this, he completed the task and selected another child.

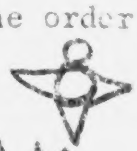
Next, the children were asked to use the symbol booklet to compare basic shapes with the shapes of objects they saw and used every day. As an example, the teacher held up a cup similar to the one in the booklet and said, "This is the side of a cup. Turn to page three in your booklet and find the picture of a cup. From the side view, the cup is only half a circle." Students were then asked to view the cup from the top, and notice that it was a complete circle. Using the other articles in the booklet, the teacher asked the students to view different angles and name the different shapes each angle gave to that article.

Students next took turns selecting an object in the classroom, naming it, its color, its size (large, small, medium) and its relationship to other objects (beside, on top of, below, inside of, underneath) so that the rest of the class could locate and identify the object through verbal description alone. After this was accomplished, the student was allowed to pick up the object and describe the shapes characteristic of each dimensional view--top, bottom, side, and front. This exercise was expanded beyond the immediate classroom to include the school (boiler in the furnace room, the principal's office) and the home (the shapes of their homes, doorways, windows). Different objects were brought to school from home or dormitory: a saddle, pottery, a doll, and so on.

The class made field trips to a local Indian community and a nearby city. Students could at any time call out clues to signal that they wanted the rest of the class to guess an object they had selected. Classmates were given only verbal descriptions and proximity clues. Since many objects selected could not be touched or handled, their basic shapes and dimensional views were included in the verbal clues given by the student.

After the field trips, students were again assigned to groups with the task of creating a collage-type picture representative of their environment. A large sheet of butcher paper was given to each group, along with different colored sheets of construction paper selected by the students, scissors, glue, and pictures. By cutting out the four basic shapes in various sizes, quantities and colors, students combined several shapes to compose the images in their picture. A pine tree, for example, consisted of one small brown rectangle and one large green triangle pasted together and then set into the picture on the butcher-paper background. When finished, each student put his sign on the work he had helped create, and groups presented their work to be interpreted and evaluated by the class.

B. Signs are Signatures

In their groups, students arranged themselves in a semicircle around the overhead projector and were instructed to draw their signs on transparencies with a grease pencil. The teacher told them that they would begin learning how to write and read their names, and explained that by taking pieces of their signs and placing them in order, each student would learn how to form the letters that make up his name. One by one, the students projected their signs on the screen and the teacher re-drew the basic shapes in the order they would appear in the student's first name. Sam's sign was  . The geometric shapes composing his sign were arranged 8ΔΔΔ by the teacher on the top right side of Sam's transparency. As the teacher drew the shapes, she explained where the shapes were taken from Sam's sign and that these shapes, as arranged, would form Sam's name. On the top left of the transparency, she illustrated and explained how the name SAM was created from 8ΔΔΔ . Using a grease pencil and a cloth, the teacher first drew 8ΔΔΔ on the top left side. She then erased the right quarter of the top circle and the left quarter of the bottom circle to form S . She then erased the bottom line of the middle triangle and moved it up to form A . The bottom of the two remaining triangles was erased to form M .

When she was finished, the word SAM was written in block letters. Students were told that these signs, S, A, and M, were letters which, when put together, spelled the name "Sam." This technique was used to help each member of the group understand how the geometric shapes of a symbolic sign became one's name.

The group was then handed all the transparencies with only the block letters remaining and students selected their own transparencies by name and not sign. In addition, the group was handed a stack of cut-out block letter stencils. There were only stencils of the letters necessary to complete the spelling of group members' names. Groups worked together to form the names.

At this point, sugar cookie dough, prepared by the school's cooks, was handed out. The dough had been rolled so the teacher could cut pieces 3 inches in diameter and 1/2 inch thick. One piece was given for each letter in the child's first name. The pieces of dough were placed on a sheet of wax paper. Sam then selected the stencils of the first, second and third letters of his name. In that order, he placed the stencils over the pieces of dough and traced over the stencil with a plastic knife. He then carefully removed the excess dough surrounding the letters and ended up with a well-formed SAM. The teacher collected the sheets of wax paper with the finished dough and took them to the kitchen where they were cooked. The finished cookie names were returned to the students, who placed them on construction paper and traced around them. They felt the shape of each letter and studied the configuration of the whole name. Children were permitted to eat their cookies when they could identify each letter of their names and rearrange the correct spelling after the letters had been mixed up. Students then cut out the letters they had traced on construction paper and pasted them in proper order on a sheet of white paper.

The group then formed a circle and each student displayed his name sheet, pointed to each letter as he named it, and stated that these letters spelled his name, which was ------. Name sheets were then collected, mixed, and placed in a box. A student was selected to pick one sheet from the box and read aloud the name. The person whose name was read had to spell his name as he wrote it on the chalkboard. The name sheet was then returned to the box and the student who had successfully read the name chose a classmate to draw the next name. Those who did not successfully read the names were helped by the entire group in identifying the word and writing it on the board.

Groups now competed with each other in learning to spell and write each others' names. The inter-group competition was viewed by the entire class as the instructor kept a tally of mistakes for each side. When all groups in the class had competed, a winning group was declared and its members were given the first chance to read the class roll and check the presence and absence of their classmates.

ACTIVITY TEN

NUMBERS

Rationale

At this point, students had learned to read and write their own names and those of their classmates; identify colors and geometric shapes; understand relational positions such as in, out, inside, over, under, beside, etc.; had acquired some understanding of both human and animal behavior; had expanded their vocabularies and were communicating effectively in verbal and non-verbal forms.

They had worked with peers in cooperative, creative endeavors and now understood the basic abstractions of symbolism and relationship. Through games and activities, they were developing coordination of large and small muscles, eye-hand coordination, finger dexterity and body rhythm.

In the preceding activities, children were exposed to the incidental learning of number concepts. This activity introduces the first formal instruction in number concepts and serves to incorporate the accumulated skills and abilities developed in previous activities.

Counting, Writing and Naming

The teacher and group members arranged their chairs in a circle. Students were told that their reading and spelling skills would be expanded to naming objects and persons in the class, school, at home, in nature, and in the community. Groups would compete with each other to see who could learn the most words. To gain one point, children selected different objects, animals, and persons studied or visited during the year. The student first had to give a verbal description of the location of the object or person and its characteristic features. He then had to pantomime its use or function and name another object or person that could perform a similar function. Finally, he had to write the name of that object on a label and place the label on the object or person. (When large or inaccessible objects or persons such as cars or firemen were used, students were allowed to clip pictures from magazines or newspapers. The student made a name tag and attached it to the picture collected. The child drew the outline or profile of the object or person on a piece of colored vinyl and cut it out and stacked it next to his name on a group chart.) The quality, quantity and time in which tasks were performed were criteria by which individuals and groups could acquire extra points. A total of four points could be acquired by a student in presenting one object or person--one for successfully presenting the object as described above; another for the quality of the presentation; one more for the quality of information in the presentation; and one point for acquiring the above three points and performing all required tasks in a minimum amount of time. The chart on which the scores of group members were recorded included the name of each member, written by that person. The scoring section was divided into two parts. One part included the number of objects presented. In this box, the vinyl cut-outs were stuck in place and represented one point. The other part showed the extra points (quality, quantity, and time points) accumulated. These were indicated by tally marks and never exceeded three.

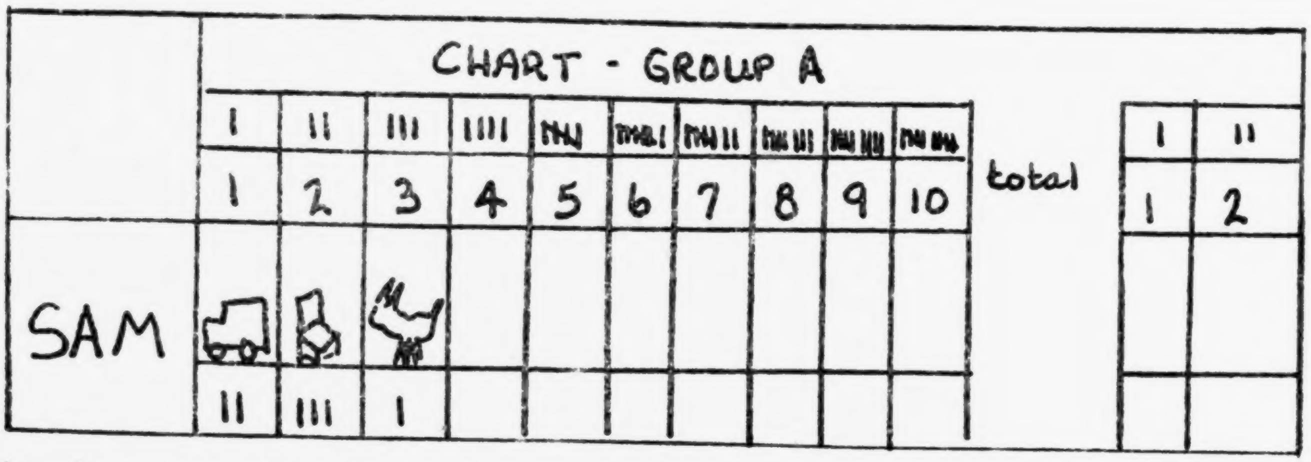


	CHART - GROUP A												
	I	II	III	IIII	𝍸	𝍸I	𝍸II	𝍸III	𝍸IIII	𝍸𝍸	total	I	II
	1	2	3	4	5	6	7	8	9	10		1	2
SAM													
	II	III	I										

The chart was also designed to help children associate number concepts with their written symbols. A tally count corresponded to the number of objects the student had presented and was placed adjacent to his name. In addition, the numerical value was written in numbers one through ten.

Learning number concepts and writing the numbers one through ten were by-products of the student's need to keep track of the number of things he had presented. If he collected more than ten extra points or objects next to his name without adding up his total points in front of the teacher and group, he lost credit for the number of points or objects that exceeded or fell short of the number ten. For example, Sam had claimed he had presented ten objects and was ready to write the figure ten under the first total section of the chart. The teacher and the group gathered to check Sam's accuracy. The group discovered that Sam did indeed have ten objects posted to his credit, but had three extra points for a total of thirteen. Sam had forgotten to keep track of both objects and extra points, and three points were subtracted from his credit at that time. Sam was then required to add up his objects and extra points, minus the three, to prove his accuracy in using numbers.

Students who had difficulty writing numbers were placed in a separate group and learned by using potter's clay. The clay was formed into the basic geometric shapes most closely resembling the number to be learned. The positive space of each geometric form was cut out of clay to form the number. The clay was then dried or baked, and students traced around the clay numbers with pencils and paper. They then felt the shape of each number. Blindfolded, they tried to identify each number by touch. When students could write their numbers without the clay forms, they rejoined their groups.

For further reinforcement, children cut large numbers from sheets of construction paper, glued the surfaces and sprinkled sand on the glue to create sandpaper numerals for sensory reinforcement. Children also selected the numbers spoken by the teacher from a group of 3 x 5 cards, and used the cards with a matching board prepared by the teacher.

project NECESSITIES

TITLE: ____________________

LEVEL: ____________________

SUGGESTED LENGTH: ____________________

DRAFT OUTLINE OF CLASSROOM ACTIVITIES

Activity Module Number	Suggested Length of Activity	Title and Description of Classroom Activity	Materials for Classroom Activity	Equipment	Narrative detail on page no.

VOLUME IV

PART B

FIRST GRADE: PEOPLE, PLACES AND THINGS

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CLASSROOM NARRATIVES 99

INTRODUCTION

People, Places and Things is social studies curriculum designed for first-grade students and is to serve as a continuation and expansion of concepts mastered in kindergarten or during the child's preschool experiences.

It is designed to provide the Indian and Eskimo student with a knowledge not only of his own way of life, but also of the ways other people live. The activities and materials in this unit are meant to act as a framework by which the teacher may devise additional content material appropriate to her own students' unique backgrounds. One of the primary emphases of this unit is the use of the student as an immediately available source of information about the people, places and things in his environment. This allows "Indian and Eskimo input" which automatically establishes culturally relevant and tribal-specific content. Regardless of its origin, however, content must be appropriate to classroom adjustment, to functional communication, and to the student as a member of a minority culture with a continuing impact on the dominant society.

The materials have been arranged serially in order to complement the psychological sequence by which learning occurs. Thus the order is directly related to the difficulty and complexity of the skills.

Before the process of abstraction can become a functional skill, the ability to discriminate differences and similarities is essential. The arrangement of materials is, therefore, designed to move from the known to the unknown, from the simple to the complex, and from the concrete to the abstract.

The total year's sequence of units is as follows:

(1) Homes, which stresses development of the student's ability to discriminate differences.

(2) Homes and Schools, which emphasizes refinement of the ability to discern similarities and to deal with simultaneous discrimination. (People, places and things are different but still demonstrate similar attributes; things which are similar can demonstrate different attributes.)

(3) School, Land and Community, which involves the student in the process of abstracting analogies and generalizations into the categorical structures of analysis and classification.

Some students enter the first grade with more highly developed sequential skills and verbal facility than others. Nevertheless, all are required to perform similar tasks. The student who understands English and uses it well has an advantage: he can respond verbally to the questions raised in the classroom. The student who lacks sufficient experience with English may comprehend the tasks equally well, and yet be unable to express his understanding verbally. Often, an Indian or Eskimo student uses English only as a second language, but such a student can demonstrate his comprehension through the use of concrete attributes such as shape, color, texture, and size.

Early in the first grade, concrete objects which exist in the immediate environment of both home and school can be used to demonstrate the ability to discriminate. A student having uncertain knowledge of English will respond more successfully to those items which are familiar and exist within his own linguistic and experiential milieu.

Thus this unit introduces the student to relationship factors, and uses concrete examples to foster the developmental skills required to comprehend more complex concepts. By building a sequential and systematic conceptual background early in the student's life, it is intended that the student will develop an understanding of abstract concepts which can expand his ability to comprehend and communicate more effectively. The implication of this is that succeeding work need not be supported by remedial programs. The ability to conceptualize produces a springboard towards effective and abstract learning.

Concepts in These Units

People, Places and Things gives primary stress to the key concepts of land and social systems. Major sub-concepts of the units are: home, family, the individual, the culture and its institutions. Secondary consideration is devoted to role, consumption and production. Each of these concepts are related to a basic understanding of the self, what is of value, and how one survives and functions in today's society.

YEAR OVERVIEW

Units: Homes, and Homes and Schools

The first skill to be developed in these two units is the ability to discern differences.

What is the difference between home and school?

To develop this concept we have provided a series of questions designed to elicit student responses in such a way that the differences between the social structures and activities of home and school become apparent. They also provide insight as to how the child views his own social adjustments and behavior patterns both at home and school.

What do you like best about home?

During the child's description of his home he may mention some distinct cultural activities which he and the class may wish to pursue. Comparisons of contrasting cultural activities provide an opportunity to develop discrimination skills. Typical responses to this question may stretch across several concept areas which the teacher may wish to develop further. FOR EXAMPLE: A student may respond to the question with, "I like going with my dad on the trap line in the wintertime." This response alludes to a cultural activity, a heritage, a value system, and an economic pursuit which is determined by the land and reflects a subsistence culture. Another response might be, "I like home because my mother makes good things to eat." This may lead to preferential discriminations with regard to food. Or the teacher may wish to expand the comparison process with a comment such as, "I've never had that kind of food, but I like __________ which sounds a little different." Other answers to this question might relate to seasonal activities or activities of a specialized kind of life cycle: "Every summer we take the sheep to the mountains to graze"; "Every summer we go to the fish camp and I have lots of fun"; "I like to help my mom pick huckleberries." The teacher may wish to pursue such a discussion by asking what the family does at the fish camp, why the sheep are taken to the mountains, what animals the father traps. Continuation of the developmental process of discrimination of differences could follow a comment from the teacher which would invite further comparisons: "When I was a little girl, my family used to _________," or "Did you know that Japanese children often fish in the summer too? How do you suppose they do it differently from us?" Other questions might include the following:

What does your home look like?

What shape is it? Is it round like a circle or square like a box?

Are the walls made of dirt, wood or rocks?

What is the roof made of? Are there windows?

What does it look like inside?

What do you like best about school?

What do you do at home that you don't do in school?

What do you do at school that you don't do at home?

What is the difference between the things you do at home and the things you do at school?

The foregoing teaches developmental skills in sequence while simultaneously developing social science concepts. This unit may be expanded with questions and content provided by the teacher. In order to maintain the focus upon the land, the home and immediate environments, questions are developed about animals, climate, terrain, places and people:

What kind of animals live near your home?

What kind of birds live near your home?

How are bird and animal homes different?

A developmental skill which can be derived from a student's ability to discern differences is the ability to discern similarities. The same sequence of questions may be used to develop this skill and to reinforce the previous social science concepts:

What things are the same at home and at school?

What do you do at home that you do at school?

What are the similarities between the things you do at home and the things you do at school?

If the proper background has been established through the teacher's contribution to class discussion, cultural comparisons may be drawn such as, "How are the summer activities of a Masai tribesman similar to those of Navajo tribesmen?" "What do you see that is the same about Eskimo fishermen and Japanese fishermen?" Responses to these questions might include abstractions regarding cultural comparison of subsistence patterns. For instance, the Masai and Navajo are both herdsmen, both migrate seasonally according to available forage and water supply, both move in small family units.

A third developmental skill which follows from the previous two is an ability to distinguish differences and similarities within the same two objects, patterns of behavior, or concepts. For example: Eskimos and Japanese both harvest fish. However, the Japanese may use a trained cormorant, while the Eskimo uses a drift net. There are cormorants in Alaska, but they are not used for fishing. Both groups consume fish and fish products. However, the Japanese frequently eat raw fish, while the Eskimos prefer their salmon smoked. This principle can be related to objects that exist in the local area. A peach and a baseball are both round, both have a cover, both have a hard core. However, their functions and utility are different. Their colors are not the same. One is manufactured, the other grows naturally. They have different textures. Some questions which might elicit discussion on the nature of simultaneous discriminations are: In what ways are school and home alike, and how are they different? They are both buildings with walls, roofs, doors and windows. But their interiors are different, and the size of the two buildings usually is different. If the teacher wanted to move into the concept of behavior patterns, she could draw out the fact that there are opportunities for play at school and at home, or that students may eat and also learn in both places. However, behavior tends to be more structured or scheduled in the school than at home. There is an emphasis on different functions. At school the emphasis is on the acquisition of, or development of, academic skills. At home the emphasis may be on learning family ways, developing skills that assist in doing the chores, or in the general operation of the household.

Unit: School, Land and Community

The fourth developmental skill is realized when the previously-mentioned skills are applied to abstracting the attributes of roles and structures into categorical systems of classification.

For example, within and around the school there are a variety of surfaces composed of organic and inorganic matter (grass, sand, asphalt, concrete, carpet, etc.), each of which has a different purpose. These surfaces can be classified in a variety of ways.

Moving away from the school, other activities focus on the land between school and the community, and deal with plant and animal life, and man's ability to learn from his environment, change the face of the land, and manage needed resources.

Finally, the unit centers upon an analysis of the community as a society having physical and social structures in which people are assigned roles, responsibilities and authority. These roles are classified and compared with those found in the home, school and tribe.

A series of questions may be used to identify items for comparison and categorization. The lead questions center around the environments students know and have experience with, and gradually move to questions designed to elicit projections based on students' experiential backgrounds. These projections allow students to deal with further questions requiring abstraction and categorization. For example:

Who cooks at home?
Who cooks at school?
Who cooks in the village?
Who keeps your home clean?
Who keeps your school clean?

Who keeps the town clean?

Who is the boss at home?

Who is the boss at school?

Who is the tribe's boss?

Who is the boss in the town?

Who disciplines you at home?

Who enforces the classroom rules?

Who enforces the school's rules?

Who enforces the laws of the tribe?

Who enforces the laws of the town?

Who makes the rules at home?

Who makes up classroom rules?

Who makes up school rules?

Who makes up tribal laws?

Who makes up town laws?

These questions lead the child to the conclusions that people perform similar roles in different environments; that systems are established with responsibilities and authorities in varying degrees to provide services to large groups of people; and that the functions and duties of home are miniature replicas of systems used by tribes and town councils. The child can perceive the function of the larger world around him by using his immediate environment as a mirror for projection.

Note: It is imperative, with all the foregoing questions, that the teacher accept the answers the student may offer. A crucial understanding, essential to the success of the units, is that the questions must be open-ended. The answers that we have suggested might be given, but should not be anticipated or deliberately sought. The discussion must proceed on the basis of the responses that the student wishes to make.

proje NECESSITIES

UNIT I: HOMES

TITLE: PEOPLE, PLACES, THINGS

UNIT TITLE: HOMES

LEVEL: Primary

SUGGESTED LENGTH: 6 to 9 weeks

OUTLINE OF CLASSROOM ACTIVITIES

Activity Module Number	Suggested Length of Activity Days	Title and Description of Classroom Activity	Materials for Classroom Activity	Equip-ment	Narrativ detail o page no
1	2-4	ACTIVITIES PORTFOLIO EXPLORATION Introduction to the use of the Activities Portfolio containing Activities Packets 1-6. The students are encouraged to explore its contents. They will decorate the outside of their Portfolio with people and homes which are colored, cut out, and pasted on.	Crayons, Scissors, Paste Activities Portfolio with prints of people, animals and homes located inside, right side section.	none	19
2	2-3	Card Sort Discrimination Games A non-verbal activity requiring discrimination of geometric shapes and sharing to complete the game. Designed to serve as a motivating activity for the Pre-test.	Packet 1	none	22
3	1-2	Pre-test Administer to determine abilities of students to discern differences and similarities. Both verbal and non-verbal questions are used. Results are entered on Evaluation Record Form as basis for comparison with Post-test results at the end of the sub-unit.	Pre-test in Activities Portfolio Pencils Crayons	none	25

NOTE: The length of each activity module, and consequently of the entire sub-unit, must be dictated by the pace at which students progress and the depth to which the teacher wishes to pursue the development of understanding and skill in students.

project NECESSITIES

TITLE: PEOPLE, PLACES, THINGS
LEVEL: Primary

UNIT TITLE: HOMES
SUGGESTED LENGTH: 6 to 9 weeks

OUTLINE OF CLASSROOM ACTIVITIES

Activity Module Number	Suggested Length of Activity Days	Title and Description of Classroom Activity	Materials for Classroom Activity	Equip-ment	Narr detai page
4	2-4	Animal Differentiation Discrimination exercise designed to teach identification of differences using pictures of animals. At the completion of the activity students may color the animal pictures to help refine eye-hand coordination.	Packet 2: Drawings of sheep, rabbits, horses Crayons for coloring animals (Overlay transparencies of animals in Packet 2)	OH	3
5a	2-4	Homes Discrimination: Exteriors Functional application of discrimination skills by making verbal contrast of different homes and their surroundings. 1. The first day's activity includes a description of exterior features of homes and their immediate surroundings, followed by related differences.	Packet 3: Drawings of Hopi Homes, Navajo Homes, Contemporary Homes, Summary Homes Drawing (Transparencies of above drawings)	OH	3
5b	2-4	Homes Discrimination Continued: Interiors 2. The second day is concerned with descriptions of the interiors of homes. What is in the home? Where are things located? Children will diagram a rough floor plan of their home, cut it out, mold clay to shape furnishings, and position shapes on floor plan. This is followed by comparing differences in different home interiors.	Paper, Scissors, Clay, Pencils	none	45

TITLE: PEOPLE, PLACES, THINGS
UNIT TITLE: HOMES
LEVEL: Primary
SUGGESTED LENGTH: 6 to 9 weeks

OUTLINE OF CLASSROOM ACTIVITIES

Activity Module Number	Suggested Length of Activity Days	Title and Description of Classroom Activity	Materials for Classroom Activity	Equip-ment	Narrati detail page n
5c	2-3	Homes Discrimination: Summary 3. The third-day activity summarizes the activities of the two previous days. Students will color the drawings of homes in their Packet 3. As they color they will be asked to describe the different characteristics of each drawing.	Packet 3 Crayons (Transparency of summary drawing)	OH	49
6	2-4	Homes Differences To describe the functional reasons for differences in homes and to discuss the strategy for selecting a home site. The activity will conclude with the students drawing two different kinds of summer homes.	Packet 4: Drawings of a Shadow Home, and Other Homes Pencils and Crayons (Transparencies of above drawings)	OH	51
7	2-4	Homes Role-Play Activity A role-play activity, "Get the Horses Into the Corral," which centers around the home: a) agree on story, b) set up location of corral, c) plot shape of corral, d) choose roles, e) act out story	None	none	55

TITLE: PEOPLE, PLACES AND THINGS
UNIT TITLE: HOMES
LEVEL: Primary
SUGGESTED LENGTH: 6 to 9 weeks

OUTLINE OF CLASSROOM ACTIVITIES

Activity Module Number	Suggested Length of Activity	Title and Description of Classroom Activity	Materials for Classroom Activity	Equipment	Narrative detail on page no.
8	3-5	Animal Homes 1. View film "Animal Homes." 2. Discuss the different kinds of homes animals build. 3. Identify which animals live in which homes. 4. Draw a picture of two animal summer homes.	Packets 5 & 6 Film "Animal Homes" available from: Bureau Wide Film Service P.O. Box 66 Brigham City, Utah 84302 Summary statement of film Transparencies for above Packets	16MM OH	60
9	2-3	Homes Art Activity Student draws or paints a picture of his home in the space provided in Packet 3. Drawings are to emphasize unique features of homes.	Crayons or paint brushes, water colors Packet 3	none	64
10	2-3	Homes Story Activity Student tells a story about his drawing or painting. He will be asked to include description of the unique features of his home.	Student's drawing of his home in Packet 3	none	67

TITLE: PEOPLE, PLACES AND THINGS
LEVEL: Primary

UNIT TITLE: HOMES
SUGGESTED LENGTH: 6 to 9 weeks

OUTLINE OF CLASSROOM ACTIVITIES

Activity Module Number	Suggested Length of Activity	Title and Description of Classroom Activity	Materials for Classroom Activity	Equipment	Narrative detail on page no.
11	2-4	Other Homes 1. View films: a. "A Boy of the Navajo" b. "African Girl, Malobi" 2. Discussion of films, centering on the homes, family life, food, climate, clothing, of the two children in the films.	Two films: "A Boy of the Navajo" and "African Girl, Malobi" available from: Bureau Wide Film Service P.O. Box 66 Brigham City, Utah 84302	16MM	70
12	3-5	Other Homes Discussion and Drawing The cross-cultural comparison of Ibo and Navajo life with the students is further refined by having the student recall interesting portions of the film, "African Girl, Malobi." Students are then asked to compare a drawing they make of an Ibo home with the drawing made earlier of their own home.	The last pages in Packet 3 may be used to draw an Ibo home Student drawing of his own home in Packet 3 Crayons	none	73

A NOTE TO THE TEACHER ABOUT THE USE OF THESE NARRATIVES

The following narrative is not meant to be a strait-jacket!

On the contrary, the narrative of classroom activities has specifically been written in the past tense so that you can "look in" on another teacher's classroom and see the way she chose to teach these materials.

There is no way to replace the critical role that teacher and student imagination play in making the classroom a place of real learning.

You may find that some activity modules will take two or three times as long as suggested. Others may take less time. You may also find that some of the activities need to be revised to meet the specific needs of your students: their cultural background, their individual capacities, and their previous learning experience.

The Project NECESSITIES staff hopes that as you "write" your own narrative of the day-to-day interchange in your classroom, you will share with us new ways that you and your students have found to make the following activities come alive. Perhaps in later versions of the narrative, others can benefit from your creativity.

CLASSROOM NARRATIVES

ACTIVITY ONE

The activity began when the teacher laid on each student's desk a folder containing the packet materials for the sub-unit: "Homes." She informed students that the folder they received was theirs to use. The folder contained materials such as picture books and different shaped cards, which they would use in the activities to come.

The instructor explained that different materials were in holders called "packets." Each packet had a number on it. There were six packets in each folder. This first day the materials to be used were the packet as a whole. The teacher demonstrated how to open the folder by untying the lace. She held the folder so all could see and pointed to packet number 1. After all the students had untied their folders, she said, "Take out this long card strip from this pocket. Now, we will unbutton this envelope on the left side of the folder to take out these cards."

The students followed instructions. They removed the long card strip which had different shapes printed on it. The students then unbuttoned the little envelope and removed its contents. They were told that the card strip and the cards were a set of materials which were named "packet number 1."

The students were allowed to examine and ask questions about the materials in packet 1. When interest was at its peak, the instructor asked her students to return the cards to the envelope and button the envelope. She then asked them to fold the card strip and put it back in its pocket.

One student commented, "This is my suitcase."The teacher expanded on the comment by comparing the function of the suitcase, portfolio and a businessman's briefcase. Students were encouraged to listen to the differences in sound between a zipper, snaps, Velcro, and the sound of a shoestring sliding through an eyelet. Students noted that metal fastenings made hard noises. Metal snaps felt cold and hard while cloth,Velcro and shoelaces felt warm and soft and pliable. The discussion continued with the teacher focusing the content around statements made by students.

She next asked her students to point to packet number 2. They continued to explore each of the six packets one by one. After each packet had been examined and the contents discussed, the instructor demonstrated that the folder was designed so that packets 1, 2 and 3 were located on the left side and that 4, 5 and 6 were on the right side. The back of the folder had a zipper which divided the folder into separate halves when completely unzipped. When the students were working with packet number 1, they could more easily handle half the folder. The children were asked to unfasten the folder and to store the second half of the folder having packets 4, 5 and 6 in their desks.

The teacher then gave each child paste, crayons and a pair of scissors. The students were shown that on the left side of their folder were drawings of people, homes and animals. They were told to cut out the drawings, color them and paste them on the cover of their folder. Students were not required to cut out every picture. The selection of pictures which were colored, cut out and pasted onto the portfolio was left to the discretion of the student. However, individual students who required additional exercise in eye-hand coordination were encouraged to group together and complete all of the coloring and cutting exercises. The teacher encouraged and directed the students, but allowed them to work the activities on their own. After all had finished, they talked about their work with the teacher and other members of the class. Once the folders were decorated, each child had a folder which was uniquely his own.

The entire activity required three days to complete. The first day was spent exploring the portfolio. The first day, each student also printed his own name on the cover of the portfolio so that it could be easily identified on succeeding days. The students colored, cut out, and pasted pictures on their portfolios on the second day. The third day was spent discussing and comparing the work they had done on their folders.

ACTIVITY TWO

Before beginning this activity the teacher divided her class into three groups. Two groups were given a seat assignment to color the pictures of summer homes in packet 4. A variety of colors were used. Careful attention was to be given to details and coloring within the lines. As the first two groups were coloring, the teacher gathered the third group around her in a circle and began the card sorting exercise.

She first signaled to three students to step up and stand beside her. The students were aware from hand signals that they were to bring the materials in Packet 1 with them. The teacher had already printed each child's name on the name card in his folder and the name space on the symbol-matching strip. Then she taped her own and the three students' symbol-matching strips on the blackboard (bulletin board) so that all the class could see them.

The four sets of cards were shuffled by the teacher and each player (including the teacher) was "dealt" six cards. The teacher turned one of her cards over and showed it to the three players and to the class. The card was a geometric shape which she placed over the matching form that appeared on her card strip. The next card was a "name" card having one of the children's names on it. She put this aside and turned over another card which she was able to use on her symbol-matching strip. Because the 24 cards had been shuffled, the teacher lacked the necessary geometric forms to complete her strip. In order to find the needed card(s) among the other players, she pointed to empty places on the strip and then at the other three players indicating that they should look through their cards and give her the necessary cards needed to complete her strip. Whenever a student gave her a card, she would give back one in trade to the student.

When the teacher filled all the forms on her card strip, she gestured to another student to complete his strip by turning his cards over, trading, etc. Each student in turn completed his card strip as the teacher had, thus demonstrating the game before the entire class. It must be kept in mind that this whole process took place without the assistance of words.

She took the cards of each student in the group to make a "pack," shuffled the pack, and then gave it to one student and gestured that he should deal the cards so that the group could begin playing the game with their own materials.

In order for each student to complete his card strip, he necessarily gave close attention to discrimination. He silently shared information through gesture. He traded cards with members of his group. He manipulated cards in order to complete his task. The teacher used the exercise to encourage children to identify both their own name "shapes" and other children's in each group.

As the group engaged in the task, the teacher circulated and by facial expression and gesture gave help and encouragement to individuals. As the group completed the activity, the teacher checked the efforts of each student. At the end of the exercise the group returned to the desks and began coloring. The second group stopped coloring and became involved in the card sorting activity. When the second group completed the exercises, the third group met with the teacher and so by rotating groups from one activity to another the entire class performed the card sorting exercise.

ACTIVITY THREE

Pre-Post Test

The Pre-test portion of the Pre-Post test is to preview the abilities and skills children possess. It should be considered a "before" sample. It should not be considered a test in the usual sense of the word, inasmuch as no evaluation of classroom learning is attempted. The Pre-test was designed to inform teachers what the child already knows and does not know. It is intended to provide teaching focal points in areas of learning that need emphasis. It can also assist teachers in designing efficient individualized learning programs.

The Post-test portion of the Pre-Post test does evaluate the influence of school, class, teacher and curriculum. It is administered at the end of the sub-unit, School, Land and Community, and is considered an after sample (what students have learned since the beginning of school).

The function of the Pre-test should not be confused with that of the Post-test. There are two parts to the test, verbal and non-verbal.

The non-verbal portion of the Pre-Post test is given in small groups of 4 to 5 students. This test is divided into three major sections.

1. Differences
2. Similarities
3. Similarities and Differences

Evaluation Procedure directions follow this activity. A total of six evaluations relate to differences, two evaluations comprise similarities and two evaluations comprise similarities-differences. The evaluations are presented in order of difficulty. For example, in differences, we begin with the simple (1-a), and end with the difficult (1-f).

The following are suggested directions to be read to the students. The teacher may create her own questions or statements for directing test activities, but when doing so, simple words and short sentences must be used consistently and verbatim. Once the content for directions has been decided upon, the teacher may hand write them on her pre-post test card stock so that each direction accompanies its evaluation, thus allowing tests to be administered efficiently.

1. Suggested directions for differences:
    - 1.a - Circle things that are different.
    - 1.b - Circle the one that is different.
    - 1.c - Circle the one that is different.
    - 1.d - Circle the one that is different.
    - 1.e - Circle the one that is most different.
    - 1.f - Circle the one that is most different.

2. Suggested directions for similarities.
    - 2.a - Circle things that are the same.
    - 2.b - Circle the one that is the same.

3. Suggested directions for similarities and differences.

   3.a - Circle things that do the same thing, but are different.

   3.b - How are these homes alike? How are they different?

The verbal portion of the Pre-Post test is given in small groups of 4 or 5 students. The group was asked questions in the order listed below. First differences, then similarities and finally questions related to similarities and differences were asked.

Differences

1. Name two things that you do.
2. Name two things that other children like to do.
3. Name two things that you do which are different.

Similarities

1. What are two things that you do at home?
2. Name two things that children in other lands do at home.

Similarities and Differences

1. How is a fork like a spoon?
2. How is a fork different from a spoon?
3. How is home like school?
4. How is home different from school?
5. How is an Eskimo like an Indian?
6. How is an Eskimo different from an Indian?

Children often panic at the thought of taking a test, but are eager to play a new game. Knowing this, the teacher was able to accomplish two goals at the same time:

> She was able to determine from the results of these tests the extent to which her children were able to perceive and manipulate differences and similarities, and she was also able to interest her students in looking carefully at designs.

Having reviewed the test, the procedures for grouping students, correcting and recording test results in the Evaluation Procedure, she walked into the room. "Good morning. Today we are going to play a game with designs. Have you ever seen designs such as these used to make things pretty?" she asked as she drew some familiar symbols on the blackboard. There was silence in the room, as the children were always somewhat shy at the beginning of a discussion. "What about this picture?"

"My father has a blue eagle on a bolo tie he wears," said one boy.

"I bet that looks handsome," said the teacher. "Many pretty designs can be found in beadwork and jewelry."

The discussion then went on to rugs and wall hangings. At a convenient stopping point, the teacher then drew a pair of similar designs and a pair of different designs to demonstrate the difference between "look alike" and "different."

"Now we will begin the game. In this game we will look at two pictures at a time and decide whether the two pictures are different or whether they look exactly alike."

The teacher then divided the class into groups of 4-5 students and gave each child a black crayon and asked them to take their Pre-Post test from their portfolios. Each student already had his name written on it. As the children began going through the test, looking at the pictures and circling differences, the teacher circulated to answer specific questions. She noticed that one child was not looking at the test. She smiled at this serious little girl whose large eyes aboided her and walked over to her desk. Very slowly, in simple terms, she repeated the directions and helped her with the task. After the child began to work, the teacher was careful to make sure that she, as well as all the other students, had finished one section before they went on to the next.

When all students had completed the non-verbal portion of the Pre-Post test, their teacher instructed three students to collect the tests (the name of each student was previously recorded on his Pre-Post test card stock and in the Evaluation Record Form in the Classroom Journal), and place them on her desk. Students were then instructed to take out Packet 2, "Animals We Know," from its folder. She showed them her packet, which she had previously colored, and asked them to color the animal pictures in the book, using only lighter colored crayons, so that none of the lines on the drawing would be obscured. The teacher also explained that the objective of the exercise was to help train the eye and hand to color inside the lines of the drawings.

All groups began coloring except one, which was administered the verbal portion of the Pre-Post test. She asked this group questions from the Pre-Post test which required students to give verbal responses. She tallied each individual response on her Evaluation Record form. She also asked other students in the group to add to previous comments. As they spoke, the teacher recorded the correctness of each response. Henry gave seven responses which the teacher tallied as ~~////~~ // in her test record under the verbal portion of the Pre-test entitled "Tallied Verbalizations." When correct, answers were given a tally mark (/) placed underneath the heading "correct." Tallies for correct answers and number of responses were kept separate and totals for each were recorded in the appropriate box. At the completion of the verbal portion of the Pre-test, Henry's test record appeared as follows:

Evaluation Record

Group 1	Pre-test Portion	Post-test Portion
Name	Non-verbal	Non-verbal
Henry Begay	________%	________%
	Tallied Verbalization	Tallied Verbalization
	~~////~~ // [7]	________[ ]
	Correct	Correct
	/// [3]	________[ ]

Out of a total of seven (~~////~~ //) responses which Henry had made, three (///) were correct.

At the completion of the test this group was directed to begin the coloring activity. The teacher picked another group and asked it to stop coloring which she gave the verbal portion of the test. Systematically, the teacher tested one group after another while others were coloring, until the entire class was examined.

That evening she corrected the non-verbal portion of the test and separated them into three sections:

Differences
Similarities
Similarities and Differences

She made note of the areas in which the students demonstrated the most difficulty and planned to spend more time in those areas. She also made note both of the students who had done well and of those who had done poorly, so that she would know:

What to expect of each child.
Which children needed the most help.
Which children might be able to tutor others during the unit.

EVALUATION PROCEDURE

Grouping Students

Before administering the Pre-test, the teacher must decide in what manner she will select students to be members of specific groups for testing. Some bases for grouping might be according to abilities, sex, and age. For example, a teacher might assign five or six students to each group. Each group should be represented by a balanced number of sexes, ages, and abilities. Such a group structure can provide an opportunity for less able students to receive help from a peer who understands what is expected. It also allows members of both sexes to learn how to relate and cooperate with each other.

Once the teacher decides that she knows her students well enough to determine how they should be grouped, she should list students' names on her Evaluation Record Form by groups (A, B, C; or 1, 2, 3). For example, see next page.

Procedure For Correcting Pre- and Post-Test Results

The directions for administering the two tests are included in both test booklets. Directions, as well as the test items, should be reviewed by teachers before giving tests.

Group A	Pre-test (Dif)	Post-test (Dif)
1. Henry Begay	Non-verbal 60 % Tallied Verbal ~~////~~ // (7) Correct /// (3)	Non-verbal 85 % Tallied Verbal ~~////~~ ~~////~~ (10) Correct ~~////~~ // (7)
	(Sim) Non-verbal 40 % Tallied Verbal ~~////~~ (5) Correct // (2)	(Sim) Non-verbal 70 % Tallied Verbal ~~////~~ //// (9) Correct ~~////~~ (5)
	(Simul. Dis.) Non-Verbal Etc. ( ) Tallied Verbal Etc. ( ) Correct Etc. ( )	(Simul. Dis.) Non-Verbal Etc. ( ) Tallied Verbal Etc. ( ) Correct Etc. ( )

2. Alice Nez	Etc.	Etc.
3. Ben Tsosie	Etc.	Etc.
4. Henry Redlegs	Etc.	Etc.
5. Roger Smith	Etc.	Etc.

1. The teacher can begin correcting the non-verbal portion of the test during free time.
2. She should then subtract the total number of correct responses from the total number of correct non-verbal items.
3. The percentage of correct items is computed.
4. The procedure for the verbal portion is separate from the non-verbal. Whereas the non-verbal is given to the entire class at the same time, the verbal is given to one group of not more than six students at a time. The other students are given assignments so that the teacher may devote her complete attention to the task. Evaluation is made when the student responds to a question read by the teacher.

The teacher has her Evaluation Record Form with her to tally each verbal response as it occurs. She also records if in the same manner the response was correct.

5. The scores of both tests should be recorded by category adjacent to the student's name.

6. After administering the Pre-test, the teacher made a class comparison of non-verbal with verbal scores to determine where individual and class strengths and weaknesses are.

7. Comparison of non-verbal and verbal sections of Pre- and Post-tests indicate the extent of progress. Students who need continuing support in learning what this sub-unit is attempting to teach will be identified, as well as children who have done exceptionally well.

ACTIVITY FOUR

This activity was designed to foster the student's ability to perceive and describe subtle differences between pictures of animals with which he is familiar. The teacher prepared for it by utilizing the Pre-test results of the previous activity to identify students who had difficulty in discriminating differences. Those students who demonstrated an ability to discriminate were included in this activity's exercises but were given only the most challenging tasks.

Before the class began, the teacher arranged that an overhead projector would be operational at the beginning of the class. She also reviewed Animal Packet Number 2 (sheep, rabbits, horses). Each of the packets was composed of a series of pictures which were numbered to indicated the sequence of difficulty and the order of presentation. The order which she followed was: 1. sheep, 2. rabbits, 3. horses.

When the class began she showed the first set of pictures. Picture Number One illustrated two sheep and one goat. The teacher reminded the students of the card game they had previously played in which they had to tell how well they could see the differences. She told them that this day's activity was a similar kind of game and asked which of the animals pictured was different. She allowed time for the students to offer as complete a response as they were able. When one student first indicated which of the animals was different, the teacher pursued his answer by using questions such as:

> How is it different?
> What is the name of that animal?
> How is its shape different?

The teacher felt the questions, "How is its shape different?", would not be understood by her students, so she rephrased it to read, "How does it look different?" The children responded well to the rephrased question. She then proceeded to the other questions.

> How is its hair different?
> How is its face different?
> How are its feet different?

In every instance, the teacher allowed the students time to offer discriminating answers. For example, when one student responded that the one animal was a goat, the teacher asked, "How is the goat's face different from the other animals'?" The student responded that it had horns. The teacher confirmed this response and followed it up by asking, "What are the horns used for"? She then returned to the initial question and another student responded that the goat's ears went out and didn't flop down. Other responses received included:

Its eyes are round and have a dot in the center.

The sheep's eyes just have dots.

The goat has a beard.

The goat's face is long and skinny.

You can see the goat's mouth in the picture.

At the completion of this exercise, the students were permitted to color the animal pictures to help refine eye-hand coordination. They also drew other animals that were different. This coloring activity further reinforced observation of detail and allowed them to reinforce the differences they previously observed and discussed.

While the students drew and colored, the teacher evaluated the lesson asking herself questions such as:

Were the students able to perceive and describe differences in the pictures of the animals?

Did I pursue the students' answers by asking more pertinent questions?

Did I allow the students time to give valid responses?

ACTIVITY FIVE A

Continuing with demonstrations that allow students to exercise their perceptual and descriptive skills with regard to difference/ similarity discrimination, the teacher began this activity about differences in habitats.

Once more, she prepared herself for the lesson by making sure the overhead projector would be operational at the beginning of the class, and familiarized herself with the Homes Packet 3. This packet contained drawings of a traditional Hopi home, a traditional Navajo home, and a contemporary suburban home , as well as a composite drawing of all three homes.

The class began with the teacher entering into an informal conversation which led to more specific discussions about where the students lived, by using well-known local landmarks. (Sample questions: "How many of you live near the San Francisco Peaks, Navajo Mountain, Bristol Bay, White River, Standing Rock, etc.)?" The intent of these questions was to help students see that a point of reference helps describe the general location of their own homes.

Some of the children, however, had narrow environmental backgrounds, and were not aware of any landmarks they could identify. The teacher asked her students to step to the window and identify things they could see--the boys' dormitory, the playground, etc. She asked, "If you were on the swings in the playground and you wanted to get a drink, where would you go?" An enthusiastic little girl said, "Go around the building." "Why would you go around the building?" asked the teacher, and the other children replied in chorus, "Because that's where the drinking fountain is." The teacher used this response to show the children that they had used the location of the building as a landmark to explain where the water fountain was located.

She then pursued the general discussion in order to determine more precise locations of students' homes. Occasionally, she commented on an area that she knew well, or expressed a desire to some day visit a given area. The majority of children were involved in the disussion as the teacher directly questioned many of them: "Where do you live, Sam? Tell us what it's like there. Who else lives near Sam?"

The teacher soon observed that some students had a fairly accurate knowledge of where they lived, while others, who were reluctant to respond, most likely were not too certain of where they lived in relation to other places. She encouraged these students by asking them if some of the features described were familiar to them in their home.

The teacher was careful not to allow this discussion to carry on too long. She ended it before the students became tired of it and shifted the discussion away from a consideration of locale to a more specific discussion of what their individual homes looked like. The shift came naturally as the question "Where do you live?" simply became more specific and defined. The students described their homes, telling other class members what they looked like, what materials they were made of, what the shape was like, until the teacher introduced other comparative examples by way of the overhead projector and the Homes Packet. One by one she showed the Hopi home, the Navajo home and the contemporary home. During the showing of each drawing the teacher asked the students to describe the exterior characteristics of each home and helped them to point out the unique features of each.

Some questions raised by the teacher to help the students pick out unique features:

Is there a horse or sheep corral near it?

Are there trees nearby?

Are there fences around it?

Is there water nearby?

Are there mountains close or far away?

Is there a corn field near it?

After previewing these questions, the teacher felt that some should relate more directly to the child, so she changed the wording of the question to read as follows:

Are there any trees near your house?

Do you have a fence?

Do you live near water?

Does your family grow food?

After the three individual homes were viewed and described, the teacher showed the composite drawing of all three homes. This drawing she used to stimulate discussions regarding differences among homes. Some of the questions she raised to stimulate this discussion were:

How are these homes different?

Are they made of the same materials?

Are they shaped the same?

Are they in the same kind of country?

Since interest among such young students would soon begin to wane without again introducing their own "primary source" information, the teacher next introduced questions designed to more directly allow comparison with their own homes.

Who else lives near a cornfield?

Who else has a sheep or a horse corral?

How many of you have a home that looks round on the outside?

Why are corrals and other pens for animals important?

How do you build a corral or other animal pen?

Why are trees important?

Where do trees come from?

Such questions could only be answered by using information students already knew which reinforced the idea that things learned from experience were valuable in academic situations.

The teacher ended the discussion by talking about the functional aspects of some of the differences. For example: homes built for hot and dry climates, i.e., hogans, are not functional in the Amazon. In the Amazon, she explained, there is much rain and it is always very hot. The rain would wash the dirt from the roof and the inside of the hogan would be muddy and wet. The walls of the hogan would not let the breezes cool the people inside. Homes in the Amazon have no walls. They have four poles that hold up the roof. The roof is made of grasses and large leaves which are tied together to keep out the rain. In winter the weather on the reservation is cold and there is snow and wind. A home without walls would not keep the wind and cold and snow out of the home. Homes are different because they do different things.

This story, which demonstrated that the teacher was also a "primary source," concluded the class. The teacher, however, was not through; she evaluated the day's activities by asking herself various questions before going on to the next lesson, which would help her present, the lesson more productively.

Some of the questions which she asked herself included:

Were the students able to talk about the unique features in their homes?

Did students see the differences between the three homes?

ACTIVITY FIVE B

Since the students were now already familiar with the exteriors of homes and their relationship to their surroundings, it was now time to introduce new materials which concerned the interiors of homes.

The teacher began the class by reminding the students of their knowledge of exteriors. She then told them that knowing the outside of a home is rather like knowing the outside of a person: his age, his clothes, color of hair and general appearance. There were many things, she explained, that they could not know about the inside of a person simply from viewing the outside. She told them that it was the same with homes but that it was much easier to know the inside of a home than the inside of a person's mind. Besides, she explained, everyone had lived most of the time inside their homes and they were already familiar with what these interiors looked like. The teacher felt that students would better conceptualize what the interiors of homes were like if the class went on a walking field trip to several types of homes, such as a trailer home, a contemporary home, and an Indian home. The experience gained from this field trip provided students with information that the students used when responding to the teacher's questions.

She then asked the class, "Who would like to tell us what the inside of his home looks like?" As several students began to answer this inquiry, the teacher found that various questions arose which assisted the students to recall some specific details with regard to the interiors of their homes:

What size is your home?

How many rooms are there?

What size is each room?

What shape is each room?

Where do you store your clothing?

Where is the cooking done?

Where do guests stay when they come to visit?

Where do you sleep?

What do you like best about your home?

Are the walls inside your home the same as the walls on the outside?

Are there things hanging on the wall?

What are they?

What are they used for?

Why are they hung there?

Are there things like a sewing machine? Where is it kept?

Name some other things that are in your home.

Where are they kept or stored?

What keeps your home warm in the winter?

What do you burn in your stove or heater?

Where do you get the fuel?

Do you keep water in your home?

Does water run out of a pipe or do you store it in a barrel? A pail?

Answers to these questions provided sufficient details about the features of individual homes that the students were next able to draw simple floor plans of their individual homes. The teacher first instructed them in the concept of "floor plan." To demonstrate this simply, she explained that a floor plan was really a picture of what the floor looked like if one looked at it from a great height. She drew a rectangle on the blackboard which she told the class represented a room; then she drew a few chairs and desks, and told the students how these lines represented objects. After the students grasped this concept, they next drew floor plans of their homes. After the floor plans were drawn, they were cut out. Next the students were provided with clay out of which they molded shapes which represented various home furnishings (e.g., stove, sheepskin, suitcases, chair and tables). These shapes were then placed on the floor plan they had made of their home. The teacher also introduced the concept of scale: "If the classroom is this big how big should the table top be?"

As soon as most of the students had completed their interiors to their own satisfaction, they were asked to compare their interiors to the interiors of other homes represented in the class. The models which they had made of the inside of their homes encouraged such comparisons.

ACTIVITY FIVE C

Since the past two days had been busy ones, the teacher determined that today she would involve the students in a coloring activity which would be both a relaxation for them and a reinforcement of all the varied materials covered in the two previous activities.

The only materials she used in this day's lesson were the Homes Packet 3 and the crayons which all the students were already provided with. She told the students to take out these materials and that today they could color the homes they had discussed. She told them to attempt to use the differences which they had noted on previous days in coloring their drawings. She also told them that to do this well, they should try to include as many details as they could distinguish or remember.

As the students began to color, the teacher circulated about the classroom asking questions at the students as to why they were proceeding in the manner in which they had chosen, to color a given home. In this way, they individually described the different characteristics of their drawings.

When the students were finished coloring, several drawings of the same house were hung before the class and discussed. All the drawings had been previously collected so that when the teacher selected certain drawings to display there was an anonymity about them. A student was free to identify his drawing and defend his manner of coloring, but he was not forced to do so. In this way the teacher could use drawings which illustrated rather poor understanding of differences without putting the less able student in the limelight.

The teacher felt at the end of the day that the class had satisfactorily summarized the materials of the past few lessons and was content to move on to new material the following day. Otherwise, she could have spent another class period on the same activity.

ACTIVITY SIX

Now that the teacher felt confident that the students could discriminate differences reasonably well, she decided to move on to a discussion and demonstration of the functional reasons for differences in homes. She wanted to discuss functional reasons for the location of homes in terms of work, food and water supplies.

Once again she arranged to have an overhead projector ready at the beginning of the class and prepared her lesson by reviewing Homes Packet 2 and 3.

She opened the class by saying: "Do you remember the other day we said that we would talk about why it is good that things are different?" Here she reminded the students of the story which she had told them about what it would be like to live in a house like theirs in the Amazon, and what it would be like if an Amazon home were built where they lived.

She then led the students into a discussion which would demonstrate the functional nature of differences. For example, she mentioned that when they had been discussing their own homes, one student had mentioned that he had a corral near his home and another had mentioned that he didn't have a corral but that he did have a big tree.

The teacher wanted to know why both would be useful under the proper circumstances. Some questions which she asked which fostered this thought were:

How is a corral useful?
How is a tree useful?
How are a corral and a tree different?
What are corrals used for?
What are trees used for?

Responses to these questions were pursued by the teacher when she asked students to tell her more about their answers.

After discussing certain specific functional differences, the teacher raised the more general question, "Why do we live where we live?" This question led to a discussion concerning why people select certain places to build a home. Some questions which the teacher asked regarding a student's home and its proximity to water and food supplies, as well as work activities

Where do you get water?
How do you store water?
What kind of food do you eat?
What kind of food do you like best to eat?
How do you get your food?
Where do you get your food?

How does your family earn money to buy things they need?

Do you live near a city or trading post? Why?

These questions drew on the information which the students had previously supplied when they drew plans of their homes. Furthermore, they started the students on the road to discrimination of value by function. Before this discussion was concluded the teacher introduced new materials by showing projections of the shadow or summer home and the drawings of a hogan, a Hopi home and a modern home (these students were already familiar with their differences from ACTIVITIES 5A, B, and C).

Questions which she asked with regard to these homes reflected the purpose for which the structures were built. For example:

Which home do you think is coolest in the summer?

Why doesn't the shadow home have walls?

Would the shadow home keep you warm in the winter? Why?

What is the difference between a hogan and a Hopi home?

What is the difference between the Hopi home and a modern home?

Why do people have a summer home?

Why do people live high on top of a mesa during the summer?

Why do people live low in the valley during the winter?

What is the difference between summer and winter homes?

Name some animals that build summer homes.

Why do these homes look alike?

How do these animals' winter homes differ from their summer homes?

At this point students were reasonably able to discriminate differences between homes and their surroundings from the standpoint of functional utility. They also had some conception of how to plan a home on a site which offers convenient strategic accessability to food, water and work activities.

The students drew two different kinds of summer homes to conclude the day's activities. The teacher evaluated the lesson by asking herself the following questions:

Were the students able to discern differences in homes?

Do students understand why the location of a home is important?

Did all students participate in the discussion of homes?

Was an understanding developed which would help students see the purpose for which a structure was built?

ACTIVITY SEVEN

Having reflected on the previous responses that the students had made demonstrating that they were able to describe the features of their home and the surrounding landscape, the teacher decided to use a role-play activity as a learning experience. Using the information gathered previously from the class members, she designed a plot, with the assistance of the class, and organized a sequence of events which led to a learning experience.

In an earlier lesson one of the students indicated that he had a corral near his home. The teacher reminded the class of this statement and suggested that they build a plot along these lines:

> Let us pretend that Steve has three older brothers, two sisters, a mother and a father in his immediate family. Steve's father and five uncles own a herd of horses which are allowed to graze on the open range during the winter. Each spring the horses are rounded up and herded into the corral near Steve's home. There the colts are branded. Later some of the horses are traded or sold. Each spring Steve's family and his uncles look forward to roundup time. They ride high up on the mesa and look for the horses. Steve's father says, "Round up the horses you find into a small

> herd. Drive the small herd of horses down the wash and into the canyon where we will all meet. Your brothers, uncles and I will each have a small herd of horses too. When we all meet in the canyon we will have one big herd of horses. Then we will drive the horses out of the canyon and into the corral at home.

At this point the teacher stopped and asked, "What do you think happened next?" Out of a number of responses the class worked out the following conclusion:

> Everything happened as Steve's father said it would. Steve found six horses and herded them down the wash. In the canyon he met his brothers, uncles, and his father. They had all found horses. They drove all of the horses out of the canyon. Steve's mother and sisters heard the horses galloping. They saw the dust. They opened the corral gate. Most of the horses ran into the corral but some did not want to go in. They ran around the corral. One horse tried to walk into Steve's house. Another horse started to eat some corn that Steve's sister was grinding. Still another horse started to drink water from the barrel that Steve and his family used for their drinking water. Everyone was running around yelling and trying

to get all of the horses in the corral where they belonged.

The teacher stopped the narrative and asked if the class would like to play-act this story they had helped to make. All agreed that it would be fun to act out the story and everyone began to organize the setting in which the story took place. The teacher encouraged the students to accept as much responsibility as possible for organizing the activity.

Since it was a rainy day and they could not use the playground for their play-acting, the students set the stage right in the classroom. They used their desks to plot the shape of the corral and the shape of the house and their relationship to each other. Then students took the roles of: Steve, Father, Mother, three brothers, two sisters, five uncles. The remainder of the students took the parts of the horses which were to be herded into the corral.

After the students had acted out their story, the teacher asked them some questions which pointed out that the world of make-believe and play-acting could also teach important things. She had them analyze their acting and their story. Some of the questions asked included:

Why didn't Steve's parents want horses in the house?

When she asked this question, the teacher felt the children's responses didn't explore the question sufficiently, so she restated the question:

> Do horses live in your house? Why not?
> Why didn't Steve's parents want the horses eating the corn or drinking the water?
> How are places in which we keep animals different from our houses?
> Was it a good idea to gallop the horses up to the corral and around Steve's house? Why?
> What is the difference between a corral that we use for sheep and one that is used for horses?

The teacher felt this question was too lengthy and should be simplified. She broke it into two parts:

> Is a sheep corral different from a horse corral?
> Tell me how it is different?

The teacher evaluated the usefulness of this activity by asking herself the following questions:

> Were all the students actively involved in each aspect?
> Did most participate in organizing the activity?
> Did I allow leadership roles to evolve within the groups?

Did I dominate the group by giving unnecessary directions?

Did the students answer the majority of questions in a significant manner?

Did I, and did the other students, make efforts to help shy students become involved?

ACTIVITY EIGHT

As the children were able to recognize differences and similarities more easily, they became ready for reasoning by analogy. The unit which showed the children differences and similarities between animal homes and people's homes was useful in aiding the development of analogous thinking.

In preparation for the lesson the teacher had previously ordered the film, "Animal Homes," from:

Bureau Wide Film Service
P. O. Box 66
Brigham City, Utah 84302

In addition to this film the teacher decided to use a second film entitled "Animal Neighbors." This she ordered from her school's film library service. She felt that since both films complemented the intent of the activity, they would add depth and reinforce the learning experience of her students. She set up and tested a 16 mm film projector in the classroom. She had previously read Activity Module 8 and previewed the film and its written summary.

The teacher asked review questions about the previous activity to introduce the material: "Do you remember after we got the horses in the corral, you were asked how animal homes, like a corral, are built differently from our homes? Today we're going to see a film which shows that animals live in different kinds of places and different kinds of homes. After we see this film we will talk about the differences between animals' homes and our homes. We will try to discover why animals build their homes where they do."

After the film, the teacher initiated a discussion which emphasized:

What kinds of things affect where both animals and men choose to build their homes.

Differences and functionality of homes.

The proximity of homes to food, water supplies, and protective cover.

The teacher then asked questions to further explore the students' comments:

Why do people build homes?

Why do animals build homes?

Why do animals build homes where they do?

Why were homes of different animals built in different places?

Why don't ants build nests in trees like hornets do?

Why do different animals that live in close proximity to each other build different kinds of homes? Example: muskrat/mink.

Name some special ways in which a squirrel's home is different from a badger's home.

Name some special ways in which a bird's nest is different from a goose's nest.

Name some ways in which your home is built differently from animal homes.

Name some ways that your home is different from your neighbor's home.

The answers to this last question, the teacher recorded on the black board under the appropriate student's name to serve both as an example of the type of information wanted and as a record from which to begin the next day's work. This question also helped develop the students' awareness of the unique characteristics of their homes and surroundings.

When the discussion ended, the teacher announced a game. "Now we're going to play a matching game. Take Animal Packet 5 from the pocket in your folder (she drew a number 5 on the board). I will hold up a picture of an animal's home (she was using Animal Homes Packet 4) and you are to find and hold up a picture of the animal that lives in that home." After the children had all mastered recognizing animal homes, the teacher said, "Now we will all take the crayons and paper I will give you, and draw a picture of two animal summer homes." The children spent the rest of the period drawing. Later, when the pictures were completed, the children displayed their drawings and talked about them.

When the day's activities concluded, the teacher evaluated the lesson by asking herself the following questions:

Was the idea dramatized that homes of both men and animals are constructed of different materials and have different designs and uses ?

Was it shown that such homes are constructed near food, water and protective cover?

Did each student make a verbal contribution to the discussion?

Were questions during the discussion pertinent to the objectives of the lesson?

Were analogies made between site location of animal homes and people's homes?

Were the functional reasons for differences included in the discussion?

ACTIVITY NINE

In order to have the student become more aware of the unique and general characteristics of his home and its surroundings, the teacher used this activity to reinforce preceding attempts to help students define differences more precisely.

She began the class by reminding them of the film they had seen the previous day about animal homes. She further reminded them of the discussion they had had about the differences between animal homes and their own homes. Then she told them, "Today we will talk about ways in which some of your homes are different." At this point she reviewed with them highlights of that discussion, and used her blackboard notes as a guide.

Next she told them that this day they would draw or paint a picture of their own homes in which they were to put all the things about their homes that made them different from their neighbors' homes. In order that they might do this, the teacher had ready sufficient materials: paint brushes, water colors and water color paper, drawing paper and color crayons, and drawing pencils.

The students chose their media and began to draw. Meanwhile, the teacher circulated about the room as they became involved in their work. She offered encouragement and also helped each child to recall features about his home with questions such as:

Is there a road near your home?

Does it have a dirt surface or a hard black surface?

Show me where it goes in the picture

She used this same line of questioning concerning materials used in constructing walls, roofs, and floors. She dramatized special characteristics of each house by holding up two drawings that demonstrated individual differences as well as by calling attention to such differences to the entire class.

As individual children completed their work and proceeded to hang their pictures, the teacher started a discussion by asking them to compare the ways their pictures were different from other pictures. As students became more and more skilled in discerning differences, contrasts were made more challenging by the teacher asking for discriminations between drawings that had only subtle differences; e.g., In two drawings each contained a representation of a house, a road, and a tree in its scenery. Only one drawing, however, pictured a few ears of corn hanging out to dry. In another pair, the difference was that one house was made of logs and dirt but in the other the house was made from shale stone and logs. At the end of the period, the drawings were kept for further use.

The teacher evaluated her efforts at the end of the session by asking herself the following:

Did students render sufficient detail in their pictures to individualize their drawings?

Did some students include more detail after I dramatized the differences of several pictures?

Did I converse with each student in an effort to obtain details of the home so that the student could include such features in his drawing?

ACTIVITY TEN

Having reviewed the unique features which characterized each student's drawings from the last activity, the teacher decided to use these drawings in class once again--this time as a vehicle to better oral expression among the students.

Since each student was to tell a story about his drawing, the teacher arranged for an opaque projector to enlarge the drawings so the entire class could see. Once more, she began the class by reminding the students of the previous day's activities. She reminded them that they had been asked to draw pictures of their homes incorporating into the drawings the things that made their homes different from other homes. Today she told them they were to tell the class about their drawings.

She told them that they could do it in any way that they wished and suggested that they might like to make up a story about their homes. Those students whom, the teacher had noted appeared least verbal, presented their stories first. In this way, other, more verbal students elaborated on the presentation thus enriching the contribution of the less able student.

Some of the questions which the teacher felt might help the students in presenting the stories of their homes included:

What are the walls made of, wood or rocks?

What is the roof made of, dirt or wood?

Does it have windows? If so, how many?

What shape is it? Is it round like a circle? Or square like a box?

Does it have one large room or does it have many rooms?

Does it have steps in front of it? If so, how many?

What do you like best about your home?

How do you help around your home?

What are some games you play around your home?

Is there a special place you like to play? Show us where it is in the picture?

What are some things that are around your home?

Is there a well?

Are there trees?

Does your family raise corn?

Do you have a summer home?

Does your family have a wagon or a truck?

What kind of animals are around your home?

Do you keep some of these animals in a corral?

The teacher encouraged group participation which contributed to the students' stories. This was accomplished with such statements as, "Who would like to ride to town in a pick-up truck like Sam does?"

At the conclusion of the class, after as many students as possible had told the story of their drawing, the teacher evaluated the day's accomplishments by asking herself these questions:

Were all students involved in the exercise?

Were all contributions received and recognized by the class?

Did students elaborate on the unique features of their homes?

Did all students verbally contribute to stories?

ACTIVITY ELEVEN

The teacher had set up a 16mm film projector to show the films, A Boy of the Navajos and African Girl, Malobi. These films were made available from:

Bureau Wide Film Service
P.O. Box 66
Brigham City, Utah 84302

(We have included mail orders and stamps for your convenience.)

It was the purpose of this exercise to compare Navajo and Ibo homes, family life, and general life style. The teacher introduced the film by saying, "Yesterday you told stories about your home. Today we are going to see two films. One is about a Navajo boy, his home and family life. The other tells about a girl who lives in Africa. She is a member of the Ibo tribe. In both films you will see their homes, the things that their families do and the work that the child must do. The first film we shall see will have sound with it, the second will not. When we show the second film, African Girl, Malobi, we will play a guessing game. We will not hear any sound or hear people talk. Sometimes I will stop the film and we shall talk about what we think is happening in the film."

This approach allowed the teacher to focus upon specific points and it allowed children to comment very soon after being exposed to a picture reading experience. The teacher stopped the film at five different points, (1 min. 15 sec., 1 min. 50 sec., 4 min. 35 sec., 6 min. 40 sec., and 7 min. 55 sec.) and each time asked the students to comment on what was going on with particular reference to heritage, clothing, climate, home and home construction, food, economy, and school. She had prepared the following questions in advance, after previewing the film, in case the discussion lagged or something important was missed:

Do these people live in a hot or cold place?
What kind of clothing do girls wear?
What kind of clothing do men and boys wear?
Do they dress differently from us?
How is their dress different from ours?
What shape homes do they have?
Does it rain a lot?
How do they build their homes?
What materials are used to build homes?
What kind of food do they eat?
How are their schools like ours?
What kind of work do girls do?
What kind of work do boys do?
What are the walls of the house made of?
What is the roof made of?
Do they have doors in their homes?

She closed the activity by saying to her students, "Try to remember as much as you can about both films. I will ask you some questions tomorrow concerning life among the Navajo and the Ibo." Questions the teacher asked herself after the close of class were:

> How accurate were the children's observations of what they saw in the films, based on their answers to my questions?
>
> What parts of the films seemed to interest them most?

ACTIVITY TWELVE

The objective of this activity was to make a cross-cultural comparison of the Ibo and Navajo home, family, economy, food, work, climate, and heritage. Students were asked to draw an Ibo home and to compare the African home with pictures of their own homes which they had previously created.

She introduced the activity by asking, "Do you remember the other day we saw two films? One film was about a Navajo boy and the other about an African girl. Today we will continue our discussion of these children who live in different lands. After our discussion you will draw from memory a picture of the house the African girl lived in. Then we will compare it to the drawing you made of your own home."

The teacher then briefly reviewed the films with the class. "If I recall correctly, the film about the Navajo started with him sitting on a hillside tending his sheep. Then it was time to herd his sheep home, and he put them in the corral. Then what happened? Who can remember what happened next?" Children were then allowed to recall as much of both films as possible.

After both films had been adequately recalled, the teacher led the group to a comparison of cross-cultural differences. She began by saying, "Thank you all for helping me remember the important parts of the films."

"Now, who can tell me:

How is the African home different from the Navajo home?

Was the work the Navajo boy did different from the work the African boy did? Tell me about it.

How is the Navajo school different from the African school?

How is the work that the African people do different from the work that the Navajo people do?

What were some things that the Navajo family sold at the trading post to earn money?

What were some things that the African family sold at the market place to earn money?

What kind of food did the African family eat?

What kind of food did the Navajo family eat?

Why were homes of both families built near places where they could grow food?

Why were houses of both families built near places where there was water?

Why were both homes built near a market place or trading post?

"I will now hand out drawing paper and crayons. You are to draw a picture of the African home from memory. After you finish the drawings you are to take out the drawing of your home. We will select several drawings and show them on the opaque projector. Then we will talk about the differences we see between each home."
(A lead-off question might be: "How is your home different from the African home?")

Questions that the teacher asked herself after class were:

Did children contribute to the majority of recall information during the verbal review of films?

Were children encouraged to compare differences in heritage, economy, food, clothing, and climate?

Were dramatic cultural distinctions emphasized?

UNIT II: HOMES AND SCHOOLS

project NECESSITIES

TITLE: PEOPLE, PLACES AND THINGS
UNIT TITLE: Homes and Schools
LEVEL: Primary
SUGGESTED LENGTH: 7 to 10 weeks

DRAFT OUTLINE OF CLASSROOM ACTIVITIES

Activity Module Number	Suggested Length of Activity (days)	Title and Description of Classroom Activity	Materials for Classroom Activity	Equip-ment	Narrati deta o page nc
1.	approx. 3	Discriminating Similarities Use as a point of reference personal articles and objects brought by children for "Show and Tell" to demonstrate that properties which appear different possess attributes which are similar in texture, shape, size, material, design and/or function. Sensory discrimination is also used to distinguish attributes.	"Show and Tell" Items children provide	none	none
2.	3	Touring School Plant Demonstrate experientially that certain activities which occur at home also occur at school (both have places to cook and smell of food cooking, both have places where fuel is burned to produce heat, etc.). Emphasized is the use of senses (tactile, sound, smell, size, shape, material, design, and function).	Student's notebook Drawing paper Crayons or pencils	none	83
3.	2	Discussion of Home and School Interiors 1. Discriminating sounds, smells, activities, design, etc. associated with the function of a particular annex or section of the school plant. 2. Describe facilities, smells, activities, materials, etc., which exist at both home and school.		none	83

74/77

project NECESSITIES

TITLE: PEOPLE, PLACES AND THINGS
LEVEL: Primary
UNIT TITLE: Homes and Schools
SUGGESTED LENGTH: 7 to 10 weeks

DRAFT OUTLINE OF CLASSROOM ACTIVITIES

Activity Module Number	Suggested Length of Activity	Title and Description of Classroom Activity	Materials for Classroom Activity	Equipment	Narrative detail on page no.
4.	3	Pictorial Comparison of the Exteriors of Homes and Schools Verbalize similarities of fixtures (windows, doors, etc.), building materials, shapes, landscape, and surrounding terrain from pictures representative of Homes and Schools.	Transparencies from packet #3 entitled HOMES Transparencies from packet #8 entitled SCHOOLS WE HAVE NOT SEEN Blackboard, chalk, eraser.	OH	83
5.	1	Field Trip to Neighboring Homes and Schools 1. Discriminating similarities and differences between Home and School. 2. Look at and discuss exterior and interior features of Homes and School. 3. To carry out verbal discussions during field trips fostering simultaneous discrimination.	Transportation if required	none	83
6.	2	Field Trip: Summary Discussion 1. Foster skills in discerning similarities and differences as separate processes. 2. Produce a climate which encourages students to verbalize ways in which school and home environment are similar and are different.	Packet #7 - Drawing of three elementary schools (transparencies of the above drawings) Chalk, erasers, and blackboard space	OH	90

project NECESSITIES

TITLE: PEOPLE, PLACES AND THINGS
UNIT TITLE: Homes and Schools
LEVEL: Primary
SUGGESTED LENGTH: 7 to 10 weeks

DRAFT OUTLINE OF CLASSROOM ACTIVITIES

Activity Module Number	Suggested Length of Activity	Title and Description of Classroom Activity	Materials for Classroom Activity	Equipment	Narrativ detail o page no
7.	4	Construct Models 1. Construct (paper, clay or sand) a floor plan of the classroom and one of a neighboring classroom to dramatize differences. 2. Construct floor plan models of students' homes and their classroom which dramatize similarities.	1. Material from which models of classrooms and homes may be constructed. May be of sand, clay, or paper cut-outs from drawings, popsicle sticks, etc. Sufficient materials must be provided for each child.		none
7a.	5	Role Identification 1. Distinguish and identify the roles of school staff figures (principal, teacher, teacher's aide, custodian, cook, and the student himself). 2. Distinguish and identify the roles of family members, (grandparents, parents, uncles, aunts, siblings, and the child himself). 3. Distinguish roles according to relationships, activities and authority.		none	none
7b.	4	Role Identification (Cont'd.) 4. Drawing analogies regarding similarities and differences between the roles of school personnel, the family group, and the child himself. 5. Comparing similarities and differences between activities of home and school.		none	none

project NECESSITIES

TITLE: PEOPLE, PLACES AND THINGS
UNIT TITLE: Homes and Schools
LEVEL: Primary
SUGGESTED LENGTH: 7 to 10 weeks

DRAFT OUTLINE OF CLASSROOM ACTIVITIES

Activity Module Number	Suggested Length of Activity	Title and Description of Classroom Activity	Materials for Classroom Activity	Equipment	Narrative detail on page no.
8.	5	Assemble Prefabricated Building Frame 1. Illustrate design, facilities, structural material and floor plan and finishing for both home and school. 2. Utilize the structure in role-playing scene for local environment, Japan and the Alps.	Prefabricated building frame	none	none
9.	3	Role Play Dramatization created by student which depicts the events of one day of home and school life. a. create plot b. set up locations for scenes c. choose role	Assemble prefabricated building frame having appropriate cultural design		none
10a.	2	Homes and Schools of Other Lands Film: "Children of Japan" (11 minutes) Discussion of film regarding the similarities and differences between the homes and schools of children of the Alps and themselves.	Film: "Children of Japan" available from: Bureau Wide Film Service P. O. Box 66 Brigham City, Utah 84302	16 mm	none

project NECESSITIES

TITLE: PEOPLE, PLACES AND THINGS UNIT TITLE: Homes and Schools

LEVEL: Primary SUGGESTED LENGTH: 7 to 10 weeks

DRAFT OUTLINE OF CLASSROOM ACTIVITIES

Activity Module Number	Suggested Length of Activity	Title and Description of Classroom Activity	Materials for Classroom Activity	Equipment	Narrat detai page n
10b.	2	Homes and Schools of Other Lands (Cont'd.) Film: "Children of the Alps" (13 minutes) Discussion of film with regard to the similarities and differences between the homes and schools of children of the Alps and themselves.	Film: "Children of the Alps" available from: Bureau Wide Film Service P. O. Box 66 Brigham City, Utah 84302	16 mm	none
10c.	3	Role Play of Activities which Center about Children of the Alps. a. create plot b. set up location for scene c. design prefabricated house appropriate to the culture d. choose roles	Any item such as a walking stick, which may serve to help the student identify himself as a child of the Alps Assembled prefabricated building frame having appropriate cultural design	none	none
10d.	3	Role Play of Activities which Center about Children of Japan a. create plot b. set up location for scene c. design prefabricated house appropriate to the culture d. choose roles	Once again the use of an item or article of clothing is used to help the student identify himself as a child of Japan.	none	none

project NECESSITIES

TITLE: PEOPLE. PLACES AND THINGS

UNIT TITLE: Homes and Schools

LEVEL: Primary

SUGGESTED LENGTH: 7 to 10 weeks

DRAFT OUTLINE OF CLASSROOM ACTIVITIES

Activity Module Number	Suggested Length of Activity	Title and Description of Classroom Activity	Materials for Classroom Activity	Equip-ment	Narrati detail c page n
10e.	1	Draw pictures which dramatize the similarities and differences between the worlds of Alpine and Japanese children and the students.	1. Drawing paper 2. Crayons or paint brushes and water colors	none	none

Activity Modules #2,3,4 and 5

The teacher began the class by telling the students that for part of the lesson they would be taking a walking tour around the school. She told the students that the purpose of the lesson was to familiarize them with, or remind them of, how their school looked, for they were going to be asked to discuss and draw a picture of the school. She encouraged them to remember at least three things they saw on the tour so that they could include these aspects in their drawing. After giving these directions, she led her students through the halls and around the grounds. As they walked, the teacher pointed out features that would be essential to the description of the school, e.g., "Listen to the sound of the typewriter" (bell, children in the playground, dishes in the cafeteria); "Feel the stone on the building wall" (the wood on the door, the iron railing"; "See the blue color on our windows" (the pretty pictures on the wall, the signs in the halls". She encouraged the children to walk close together so that all of them were able to hear each others' comments. After returning to the classroom, the teacher quickly settled the students. She began by reminding the students of their instructions before the tour; she asked them to draw three things that they saw so that they would not forget them.

"Henry, what is one thing that you saw?"

"A swing."

As each student answered the teacher recorded on the blackboard the vocabulary words she felt were appropriate for the level of the class.

She asked the students to copy each word in the small notebook that had been provided them, and sketch a small picture beside the word. After ten to twelve words were on the board, the teacher asked the students to close their notebooks, put down their pencils, and give her full attention. She used the vocabulary words on the board as starting points for more comprehensive questions about the description of the school, e.g.,

> "Besides the swing in the playground, what else is there?"
>
> "What else is our school made of besides stone walls?"

The discussion was geared toward the following questions:

1. What is the shape of the school? More than one?
2. How large or small is it in comparison to other buildings in town?
3. What parts of the school have colors?
4. What are the names of the colors?
5. Are there different buildings to our school?
6. What are the names of the buildings?
7. How do the activities of each building differ?
8. Describe the land and area that surrounds our school. Are we located on a street? field? plain? mountains? valley?

As students reacted to questions the teacher sought greater depths and detail to answers. "Who can name the different parts of our school?" One student replied, "the playground," another mentioned "the lunchroom," still another volunteered, "the principal's office." The teacher encouraged the child to recall as much detail as possible about each area named. What are some things you like to use on the playground? Responses included, slippery slides, see-saws, monkey bars, sand boxes, etc. Other questions asked were:

1. What games do you like to play on the playgrounds?
2. Name some games you play in class.
3. What is the difference between the games you play in class and the games played outside?
4. What are some of the noises you hear in the lunch room?
5. What is the difference between the noises you hear on the playground and the noises in the lunch room?
6. What are some noises you hear in the principal's office that are different from noises we hear in class?
7. What makes the lunch room smell different?
8. Name some lunch room sounds that are different from the classroom sounds.
9. Why do different places in the school have different sounds, smells, sizes, and shapes?
10. What sounds do you like best?
11. What smells do you like best?
12. What do you like best about school?
13. What do you like best about home?
14. What do you do at home that you don't do in school?
15. What do you do at school that you don't do at home?
16. What do you do at home that you do at school?

17. How are home and school different?

18. How are home and school alike?

The teacher then asked her students to step to the window and name things they saw. The children were excited. Each was naming objects and competing with the other in seeking the teacher's praise and attention. Responses included, "grass, trees, fences, sidewalks, roads, houses, cars, water fountains," etc. The teacher listed several of the objects named on the blackboard. She then asked the students to return to their seats, close their eyes and think of what it looked like around their home. As the students were involved in the recall process the teacher asked them to raise their hands when they were ready to describe their home and surroundings.

As each student named features around his home, the teacher listed them on the blackboard. A list describing the school's surroundings was also compiled.

There were two columns of features listed. One side was entitled "Surroundings of School". The other was, "Surroundings of Home". The latter had the name of the child preceding the description of his home.

EXAMPLE:

Surroundings of School

fence
water fountain
grass
trees

Surroundings of Home

Henry
  corral
  pick-up truck
  sheep

Surroundings of School (Cont.)

- sidewalk
- street
- houses
- playground
- school bus
- boys' dormitory

Surroundings of Home (Cont.)

- horse
- sage brush

- Mary
  - weaving loom
  - Pueblos of neighbors
  - corn field
  - mesa
- John
  - old sod home
  - horses
  - cattle
  - grassy plains
  - Black Hills
- JoAnn
  - The Yukon River
  - food cache
  - willow, pine
  - mountains
  - air strip
  - cabins of neighbors
  - fish smoking racks
  - sled dogs
- Sam
  - village homes
  - ocean
  - rocky beach, sea
  - gulls
  - pier
  - fishing boats
  - tundra
  - shrub pine
  - snow-mobiles
  - hoist trucks

At this point, the instructor began questioning students about how the school's surroundings were different from those of the home, and how the surroundings were the same. As the students volunteered answers to questions, the teacher encouraged generalizations by asking the following:

What do people here use to travel from one place to another?

Did Sam tell us how people in his village travel?

Are snow-mobiles and boats ways that people can travel?

Are cars used for travel?

The teacher derived explanations from children that even though snow-mobiles, boats, horses and cars don't look the same, they do the same thing, and are used by people to go from one place to another. They go places fast and can carry heavy loads. The teacher then posed the question:

What did Sam say his family used to travel in near home?

After the students replied, they were referred to the first column which listed features surrounding the school.

What do people use to travel around the school?

The children's responses included items previously unlisted such as pick-ups, motorcycles, airplanes, boats, etc. The students' responses encouraged the teacher to list the additional items to the first column. She then asked questions of students in the group who had not contributed to the discussion: "In what ways are the surroundings of Sam's house and our school alike?" The children answered, "They have things that people ride on." After enthusiastically praising the child's response, the teacher asked, "In what way are a snow-mobile and car alike?" After a short period of silence one student said, "Because they go," another mentioned the fact that "People ride on them," still another said, "They make noise when they go."

In order to maintain the motivation of these less responsive students the teacher continued the same line of questioning.

> What causes the noise that cars and snow-mobiles make?
>
> What is the difference between a snow-mobile and a car?
>
> Where do cars drive?
>
> Which is stronger?
>
> Which would you like to ride in if you were cold and wet? Why?
>
> Why do you have to dress differently in a car than you do on a snow-mobile?

The teacher continued to expand the relationship between home and school by having students elaborate on the concept that things may perform like functions but may be very different in size, shape, design and materials. Some student responses included statements that schools have walls and so do homes; that walls protects us from the cold; that walls hold up the roof; that walls are used to hang things on; that walls help to keep out noises; that walls in a home are not as fat as walls in a school; that walls in schools are higher and have a different color from walls at home. The discussion continued and eventually included boundary lines such as fences, reasons why grass is planted around homes and schools, advantages and disadvantages of paved streets and dirt roads. At this point the overhead projector which had been previously positioned was turned on and transparencies from Packet #3 entitled Homes and Packet #8 entitled Schools We Have Not Seen were used to summarize similarities and differences between exteriors of Homes and Schools.

Activity Module #6

The activity began when students of group A took their places in the circle and were handed Packet #7. They were read the title of the packet and given an opportunity to explore its contents.

The teacher announced that they were going to play a game and that the group would be divided into two teams. The teacher divided the group in half, setting opposing teams on her right and left side. She was positioned within easy reach of the blackboard, chalk and eraser. A line was drawn on the blackboard. The responses of team #1 were recorded by the teacher on the left side. Team #2 answers were written on the right. She explained that the object of the game was to look at the drawings of schools in their packets and name as many features as they saw. They were told that one drawing would be viewed at a time and each drawing would have its features listed separately. The team which named the most features were the winners.

The students were given two minutes to respond to each drawing. As they called out features such as a flag pole, sidewalk, and windows the teacher recorded each response on the appropriate side of the blackboard. At the conclusion the winners were announced and a list of features for each drawing was obtained. The instructor asked the losing team, "Would you like another chance to win?" The next game was played differently. The teacher held up two drawings of schools. Team #1 called out similarities. Team #2 was to verbalize differences. Both teams would receive one demerit for indiscriminate responses (calling out similarities instead of differences or vice versa). At the conclusion the students (with the help of the instructor) counted up the total demerits from each side and subtracted them from the total number of responses in determining the winning team.

During the game there was an occasional lull in naming features. On such occasions the instructor stimulated responses by asking questions such as:

> Which two look most alike?
> How are the alike?
> Which schools look most different?
> How are they different?

Students were then asked to compare features of their home with the illustrated drawings of school. Students were encouraged to generalize interior features basic to most schools such as desks, chairs, blackboards, classrooms, lunch rooms, rest rooms, drinking facilities, etc.

Responses included statements such as:

> "We don't have a flag pole near our home."

"Our home has a door and school has a door."

"The school is made of rocks and my home is made of rock."

"My home has a wooden floor, the school has a carpet."

"There is a place to cook and eat at both places."

"We have trees around our houses and so does the school."

"There are chairs at home and in school."

"There are mountains at home but not at school."

Students were informed that the next activity would allow them to construct models of their home and school.

project ECESSITIES

UNIT III:

TITLE: PEOPLE, PLACES AND THINGS

LEVEL: PRIMARY

UNIT TITLE: School, Land and Community

SUGGESTED LENGTH: 16 to 18 weeks

OUTLINE OF CLASSROOM ACTIVITIES

Activity Module Number	Suggested Length of Activity (days)	Title and Description of Classroom Activity	Materials for Classroom Activity	Equipment	Narrative detail on page no.
1	approx. 2	The Land Around the School Children discovered similarities and differences of surfaces and discussed the utility of surfaces as related to play and beauty. They observed the composition of different surfaces and discriminated surfaces by feel.	paper bags blindfold box samples of surfaces	—	99
2	3	Directions Children identified east and west by the sun's movement, and through stories, learned about the north and south. They placed colored suns in appropriate directions on the classroom sandbox, took a walk with compasses to watch directional change, and made simple maps of the land around the school.	stories about North and South classroom sandbox white and colored paper scissors crayons compasses	—	101
3	7	Climate, Seasons and Water Children explored the relationship of climate, seasons and water to man, plants,animals and the land. Climates and seasons were classified, and the class discussed the necessity for man to manage and control water.	magazines and calendars scissors, glue poster paper films and stories of the seasons artistic media cardboard cardboard cartons	film proj. —	103

project NECESSITIES

TITLE: PEOPLE, PLACES AND THINGS
LEVEL: PRIMARY

UNIT TITLE: School, Land and Community
SUGGESTED LENGTH: 16 to 18 weeks

OUTLINE OF CLASSROOM ACTIVITIES

Activity Module Number	Suggested Length of Activity	Title and Description of Classroom Activity	Materials for Classroom Activity	Equipment	Narrative detail on page no.
4	4	Irrigation Through slides and a film, children were shown that cultivated plants, animals, and people are dependent upon water. Soil composition was studied, and children saw how irrigation and fertilization improve soil.	slides (or pictures) of crops bean seeds various soil samples film about irrigation and fertilization	slide proj. film proj.	106
5	2	Natural Vegetation Children collected natural (wild) vegetation near the school, mounted and identified their finds. They discovered that different types of vegetation grow on different sides of the same hill and discussed why.	plastic bags 4"x8" index cards tape, scissors pencils books on plants		108
6	3	Uses of Natural Vegetation Guest speakers told the children how plants can be used for dyes, for weaving and for jewelry (seeds); which plants are edible and which are poisonous; and which are eaten by wild animals. Children made bulletin board displays of various plants.	samples of plants paints or dyes plastic bags		110

TITLE: PEOPLE, PLACES AND THINGS
LEVEL: PRIMARY
UNIT TITLE: School, Land and Community
SUGGESTED LENGTH: 16 to 18 weeks

OUTLINE OF CLASSROOM ACTIVITIES

Activity Module Number	Suggested Length of Activity	Title and Description of Classroom Activity	Materials for Classroom Activity	Equipment	Narrative detail on page no.
7	5	Animals Between the School and Village Children took a field trip to look for wild animals, and compared different species of animals, the homes they live in, and their social orders. Children classified animals, discussed their habits and habitats, and drew murals composed of various animals and their foods. Students created their own animals, part reptile, part bird, etc., and described their habitats.	magazines, other printed media scissors large pieces of paper artistic media animal books film about animals animal food samples clay	Polaroid cmra. film proj.	112
8	5	Man and Animals Man's use of wild animals in the past and present were topics, and children were introduced to the concept of conservation of animals by state game authorities. The raising of crops to feed domestic animals was discussed, with emphasis on proper soil treatment to avoid erosion. Students chose a meal comprised solely of animal products.	classroom sandbox films on over-grazing and erosion, wildlife conservation, uses of wild and domestic animals foods of animal products	film proj.	115
9	5	Animal Societies Children studied ant societies and those of bees, termites, beavers, etc. and how specialized physical features help these animals perform their functions for survival. The teacher drew analogies to show the children the similarities between animal and human communities.	films and film strips, books, etc. about animal societies	film proj. filmstrip proj.	118

project NECESSITIES

TITLE: PEOPLE, PLACES AND THINGS
UNIT TITLE: School, Land and Community
LEVEL: PRIMARY
SUGGESTED LENGTH: 16 to 18 weeks

OUTLINE OF CLASSROOM ACTIVITIES

Activity Module Number	Suggested Length of Activity	Title and Description of Classroom Activity	Materials for Classroom Activity	Equipment	Narrative detail on page no.
10	10	Man's Use of the Land The class started with the Stone Age and learned how man formed communities for survival. As population grew and communities were enlarged, more land was needed to feed the people, and the land was changed more and more. Children followed the evolution of early communities into today's towns and cities.	films and stories of Stone Age man artistic media	film proj.	120
11	10	The Land in the Village Children made a field trip to the village to observe the buildings and the materials they were made of. They compared the materials used in animal homes with those used by man.	pencils, paper, glue plastic bags samples of building materials Animal Homes book and transparencies	Polaroid cmra. overhead proj.	124
12	10	Buildings and Their Uses Children again toured the village, observed the buildings and their functions, and spoke with workers. Students learned that people have different responsibilities in helping the community. They also classified buildings according to their uses.	artistic media film shorts and videotape clips of people at their jobs	film proj.	127

TITLE: PEOPLE, PLACES AND THINGS
LEVEL: PRIMARY

UNIT TITLE: School, Land and Community
SUGGESTED LENGTH: 16 to 18 weeks

OUTLINE OF CLASSROOM ACTIVITIES

Activity Module Number	Suggested Length of Activity	Title and Description of Classroom Activity	Materials for Classroom Activity	Equipment	Narrative detail on page no.
13	8	The Old and the Present Villages Children inspected the ruins of a nearby former village and discussed the differences between the old community and the present village. They constructed models of both communities.	films and records of life in an old Indian village artistic media	film proj. Polaroid cmra. record player	130
14	3	Home, School and Community The class made a model of the school and compared the school's facilities with those of a community. They then compared the roles of family members with various roles in the school, village, and tribe, and discussed the responsibilities and authority associated with each job.	artistic media	—	132
15	1	Post-Test The teacher administered the Post-test section of the Activities portfolio to determine the students' progress in discriminating differences and similarities. Both verbal and non-verbal questions were used. Results were entered on the Evaluation Record Form and compared with Pre-test results from the beginning of the unit.	Activities Portfolio pencils	—	134

TITLE: PEOPLE, PLACES AND THINGS
UNIT TITLE: School, Land and Community
LEVEL: PRIMARY
SUGGESTED LENGTH: 16 to 18 weeks

OUTLINE OF CLASSROOM ACTIVITIES

Activity Module Number	Suggested Length of Activity	Title and Description of Classroom Activity	Materials for Classroom Activity	Equipment	Narrative detail on page no.
16	5	Party Children invited parents and resource people from the tribe, State Government and community to a classroom party. They organized committees to plan and execute preparations, and assigned roles for all children.	invitations party materials		137

ACTIVITY ONE

The Land Around the School

The teacher asked the students to tell about things they like to do on the floor at home or in school. Different types of floor coverings and surfaces were discussed. She asked what kind of floor or ground covering they liked and why. They discussed the types of surfaces required for certain activities, and the advantages and disadvantages of each:

Smooth, hard surface of linoleum laid over wood flooring
Smooth, soft surface of wind-blown sand or snow
Rough, hard surface of sweep-finished concrete
Rough, soft surface of rugs or carpeting

The teacher and students took a walk around the school to learn what kinds of surfaces there were around their buildings, i.e., grass, blacktop, cement, gravel, sand. Students were asked:

How are the surfaces alike? (appearance and composition)
How are they different?
How did the surface get there? (man-made or natural)
How do we take care of it?
Which is hard and smooth?

Which is soft and smooth?

Which is cool?

Which is hot?

Which is rough?

What games can you play on each surface?

Students collected samples of some of the surfaces as they toured around the school and put them into a box. One at a time, the children were blindfolded and took turns reaching into the box and pulling out a sample to identify by touch.

Students were then told that different parts of the land have different kinds of surfaces. They were asked to describe the surfaces found in hot, dry places; cold, wet places; hot, wet places, etc. The opportunity arose for the teacher to explain that it is colder in the north and hotter in the south, and the land surfaces of the north are different from those of the south, as are the kinds of plants and animals found there.

ACTIVITY TWO

Directions

The teacher asked her students to point to the direction north. None of the students responded correctly, so she began to orient them by asking the following questions:

> Where is the sun when you get up in the morning?
> What color is the sun when it first rises?
> Where do you see the sun just before night?
> What color is the sun sometimes just before it goes down?
> Do we have a name for the direction in which the sun comes up? goes down?

The teacher had introduced east and west. These directions were added to the classroom's sandbox, using the color code yellow for east and red for west (a yellow sun on the east side and a red sun on the west side).

During rest time the teacher read "The North Wind" and north was later added to the sand table model, color coded blue, for cold. Later, a story about the south was read, and south was added in green.

The class then made a simple map of the school and village. Compasses were borrowed from the high school, and the class took a walk along roads and paths away from the school, noting the movement and change in compass readings when they walked in a northerly, then easterly, westerly, and finally a southerly direction. In addition, distinguishing land features were observed and discussed.

The class now made a simple map of the land around the school, and marked the four directions. They also mapped the proper location of walks, roads, playground, grass areas, flagpole, drinking fountains and the main entrance to the school building. The compass was used to orient these features. The teacher asked students, "Where does more rain fall?" Some students who had visited the nearby mountains answered, "In the west." "How do you know?" replied the teacher. "Because it is high and green," said the students. The teacher complimented the children on locating the mountains by direction.

ACTIVITY THREE

Climate, Seasons and Water

The teacher asked the class, "What would happen to the land around our school if we didn't have water?" and an experiment was devised to find out. Children dug up three indigenous plants of the same species that grew around the school. After making sure the transplants were living, the students placed them in a sunny window. They gave the first one excessive amounts of water, the second the same amount of water it would ordinarily receive outdoors, and the third no water at all, over a period of two weeks. The students watched the third plant fade and die as the soil it was planted in became hard and cracked. The first plant looked sick and its soil was soggy. The second plant did well and its soil was of the same texture as that around the school. Students learned that the amount of rainfall affects plant life and soil consistency. The teacher asked, "When do we have the most rainfall?" "What other kinds of weather do we have around our school and village?" The students collected pictures of weather and pasted them on large pieces of paper with the appropriate seasonal and climatic names added. They discovered that different places have different climates, and different amounts of rainfall. Climates were described as hot, medium, and cold.

A diorama (miniature representation) of each season was produced. The class was divided into groups and placed around four tables. Each group was to represent one season, discussing the characteristics of that season and then making small scenes to illustrate these characteristics. Films were shown, stories were read, and discussions were held concerning the way the seasons affect weather, people, plants and animals. The groups gathered materials, planned their scenes and assigned tasks to each student. Each scene was constructed on a piece of cardboard which would eventually fit into a cardboard carton. Some children were delegated to paint scenery and sky inside the carton. When each scene was completed, it was set into the box and the teacher then cut an opening in one side of the box. Children could look through this opening and get a three-dimensional effect.

The teacher next told the children how important water is to man, and how he must often manage and control it. She took the students for a walk around the school to find evidence of water management, i.e., drains, roof slants, and drainage slopes that move rain and melted snow away from the foundations of the building. The teacher asked the students if they knew where the water they drink in school comes from. Does it come from the faucet, or the pipe? How does it get in the pipe? Is anything done to it before we drink it? The teacher had previously made plans to take the children to the water processing plant, and there they were introduced to the purification process.

Next she asked, "What happens to water that goes down the drain? Where does it go? How does it get there?" A tour of a disposal plant was arranged and the children also saw sewer system outlets. In each instance, they noted that plants were greener where drains and downspouts flowed onto the land. The teacher emphasized that sewer water carried decaying organic materials to fertilize the plants. She was quick to point out, however, that if the organic materials were not diluted by water, the heat produced by decaying matter would kill plants.

ACTIVITY FOUR

Irrigation

To emphasize the dependence of cultivated plants, animals and humans on water, and the interrelationship of each to one another, slides were shown of local crops in the various stages of development. Samples or pictures of as many local crops as possible were also presented. Children were asked:

What is the crop?
Why is it grown in this community?
Who grows it?
Where is it sold?
How does it get to the people who buy it?
Where do the people buy it?
Who uses it?
How do they use it?
Name all the crops you know that do not grow in this community.

Students then planted some bean seeds in various soil samples they collected from the area. Each individual cared for his own plants and made sure they had sufficient water and sunlight.

Over a period of time, comparisons were made regarding the effects of different soil compositions on the plants' general health.

Children viewed a film showing how some people are able to help their plants grow better by irrigation and fertilization. Good soil is made up of many elements, and poor soil is low on or even missing some of these elements. Fertilizers are these elements, and putting fertilizer on the ground makes the soil better. The children were asked:

What kinds of plants grow in an irrigated field?
What plants grow where there is no irrigation?
How are wild plants different from cultivated ones?

Since students showed great interest in this subject, the teacher devised a way for them to compare natural and cultivated vegetation.

ACTIVITY FIVE

Natural Vegetation

A field trip was organized to a nearby hill where children could observe and collect specimens of natural vegetation. The class was divided into teams, and children were given plastic specimen bags to use. Before leaving the school, children were told that if they pulled up a whole plant, there would be no plant next year. She told them that she would soon show them how to collect their specimens.

Each group was assigned a specific area for collecting--some on the north side of a hill, some on the south. The teacher demonstrated how they should take their specimens. She pulled off only the top part of the plant, making sure she had examples of the stem, leaves and flower. Children imitated her, and managed to find many different plants and grasses.

When they returned to the classroom children were given a number of 4 x 8" cards and clear tape. They mounted their finds on these cards and using simple plant books or a mounted collection from the Junior High school, the teacher helped the children identify and label their finds.

Children compared and discussed their collections, and the teacher guided them to the following questions:

On which side of the hill did you see the most vegetation?

Were the same kind of plants found on both sides of the hill?

Was the ground surface the same on both sides of the hill?

Why were ground surfaces and plants from different sides of the hill different?

Of what use are natural plants?

ACTIVITY SIX

Uses of Natural Vegetation

The teacher invited a guest speaker from the community to talk about and demonstrate some of the uses of natural plants. The speaker told the children how dyes were made from some plants, and demonstrated part of this process. Another speaker told the children which plants were useful for weaving, and children made a field trip with the speaker to collect these grasses and reeds. The class wove mats and made simple objects from these. Another field trip was made to collect various seeds, which were dyed or sprayed (or left natural) and used by the children as beads.

Another guest was the County Agent, who took the children on a trip to collect edible plants. He pointed out poisonous plants, told the children not to touch them, and described their effects on humans and animals. The edible plants were prepared and tasted, and the children were asked which ones tasted like vegetables from their own gardens. Before he left, the County Agent gave the children pictures of poisonous plants, and a bulletin board display was assembled.

The local Fish and Game official was invited to the classroom. He told the children about the plants the wild animals eat, and the children accompanied him on a trip to find these. The plants were put in plastic bags and made into another bulletin board display.

ACTIVITY SEVEN

Animals Between the School and Village

The teacher asked the children where they might find the animals who eat the wild plants displayed on their bulletin board. A field trip was organized to investigate an area between the school and the village, where wild animals and their homes might be found. A Polaroid camera was also taken along.

The Polaroid pictures, along with magazine and newspaper pictures of wild animals, were used to compare the similarities and differences between different species of animals, the homes they live in, and their social orders. Questions for the children included:

Where are different animals found?
Which animals have fur?
Which have feathers?
Which have scales?
What things do a mouse and a chipmunk have in common?
Are birds and snakes at all alike? (feathers are outgrowths of scales)
What kind of food do they eat?

Why do they live where they do?

Name animals or insects that live together.

Name animals that live alone.

Why do animals or insects live together?

Why do some animals live alone?

Why do people live together in villages and cities?

Why do people have rulers over them?

Do animals and insects that live together travel great distances from home? Why?

Do animals who live alone travel great distances from home? Why?

To expand the childrens' knowledge about wild animals, the teacher brought into the classroom a number of books about animals which the children were free to look through. She read stories about animals, their habits and habitats, and a movie on mammals was shown. Children found stories about the animals of their area and studied their habits.

The class grouped animals according to their classifications, i.e., mammals, reptiles, birds, etc. A mural of animals was drawn, and samples of their foods were collected and glued next to each animal's picture. Students learned more about the social behavior of animals. Ants are social, they found, while bobcats are independent.

Each student used his imagination to fashion an animal of clay, making it part mammal and part reptile or bird. The class shared their strange animals and told about their creation.

Where does your animal live?

Is he a social animal or does he live alone?

What does he eat?

How does he move?

How can we use him?

The teacher led the discussion to the way man uses animals. Some children thought of dogs simply as pets; others said they helped man do his work. Some children saw animals only as a source of food.

ACTIVITY EIGHT

Man and Animals

The local tribal story teller told the children legends and stories about man's use of animals in bygone years for food, clothing, transportation, religion, ceremonies, etc. He described the habitats of such animals as the beaver, eagle, rabbit, buffalo, deer, elk, mountain sheep, etc. The story teller told how the elk, mountain sheep and bear once lived in the valley and plain, but these animals were hunted heavily when the white man came, and so they went to the high mountains to live, where they were protected by the thick forests and their isolation. He spoke of how Indians hunted, and how different parts of the animal were used (how meat was processed; the use of tendons, hide, horns, rib-bones, which were made into thread, clothing, tools, etc.).

A State Fish and Game official spoke to the class about animals and their habitats, and told the children what animals exist in their immediate environment. He also told of the state's effort to conserve existing animal life and the attempts to repopulate the area with the animals that once lived there.

He explained about the balance of nature and how man had upset this balance; how man is trying to fix this balance by leaving certain areas wild for the animals.

The County Farm Agent was last to make his presentation. He told why some land is changed to provide food and resources for man, and food for domestic animals during the winter. The problems of over-grazing and poor farming practices that cause erosion were described. The agent explained that tall grasses protect the soil from the drying influence of the sun, and their roots hold the soil and keep it from washing away in heavy rains and strong winds. He told the children that when we put too many cattle and sheep on the land, all the grass will be eaten right down to the ground. That when the rains come and the wind blows, there are no healthy roots to hold the soil, and it is blown and washed away.

The process of erosion was demonstrated in the sand box. The agent formed a steep hill of sand and poured water on the top of the slope. As the water moved down, it carried sand with it. In another corner of the sandbox, the sand was dry, and when he blew on it, it blew away. In each case, he asked a student to describe what he saw happening. He then explained ways by which the problems of erosion have been corrected. He said that irrigation and sprinkling systems control water to allow plants and crops to grow where it was once too dry for them to live. With irrigation systems, good pasture and crops can be cultivated, to be harvested, transported, and fed to domestic stock such as cattle, sheep, horses, pigs, chickens and turkeys.

Field trips were taken to a local forest or National Park so that students could see the real habitats of animals. The state game preserve and fish hatchery were visited to give children experiences with wildlife people seldom see.

Films of each of the above subjects were shown to elaborate on man's interaction with animals and the influence of both on vegetation and land. Students planned a menu comprised of animal products. They had to name the animal from which the foods came before their selection would be included on the menu. Some foods selected were eggs, milk, jello, whipped cream, hot dogs, crackling, cheese, etc. From the wide selection of foods mentioned, the class picked eight dishes which the majority of students had not tasted. The food was bought and a tasting party was conducted, with the children sharing meat, poultry, dairy and fish products.

ACTIVITY NINE

Animal Societies

This activity illustrated that some animals establish communities and social systems and assign specific roles to their citizenry. The basic intent of societies, be they man or animal, are similar.

The teacher discussed the ant society with the students, pointing out that ants have societies to ensure survival. They organize themselves to obtain food, fight enemies, and construct communities. Because many ants work together, instead of separately, they are able to accomplish a great deal. Certain ants are herdsmen who feed, groom and care for aphids, tiny insects which when milked, produce a sweet honey-like substance that ants use as food. The ant community is built underground and consists of a maze of tunnels and apartments. In some apartments food is stored, in others ant eggs are nurtured until hatched, in still others, aphid barns are maintained. Certain ants are physically developed to perform special jobs. There are warriors, workers, herdsmen and egg layers. When there are too many ants in one community, a portion of the population moves to a new place and establishes another community. Certain kinds of ants develop wings so they can fly to a new place.

The ant, like man, beavers, bees, termites, etc., uses the land around him and the land is changed as a result of his influence. For example, ants dig tunnels in the ground when making a village. The grains of soil are piled at the opening and form a hill, with the entrance located on top. The area around the ant hill is cleared of grass, leaves and other debris. Like man, ants hunt certain insects for food, harvest certain plants, and store them for future use.

Using the above pattern, the teacher related the similarities between ant societies and those of termites and bees. The specialized physical features which help them survive and carry out their roles in the community were emphasized. In every instance, the teacher was quick to draw analogies with the organization man has established for his communities. Comparisons of roles and habitats were also made--for example, ants have enforcers who keep order, and so does man. Man usually claims the land which he settles, as do ants. Man and animals have territorial boundaries and resent trespassers.

ACTIVITY TEN

Man's Use of the Land

In order to determine the ways land is used by man, students were told about man's evolution as a social being. The children were read stories and shown films of man during the Stone Age, and were asked to observe how man used land to make his home, hunt, fish, and dig for roots with crude tools. The instructor sequenced the civilizing process to show men learning that their chances of survival were much better when they banded together to defend themselves from enemies (or attack them), and when men worked together to help each other. By working together, men could exchange and share skills and knowledge to obtain food, build dwellings, and protect themselves from the hardships of nature. Because of these basic concerns, men began to live close together and form small clans or tribes.

The effects of the seasons on food supply were discussed. Man recognized a certain plant could be harvested in the summer and stored to be eaten in the winter when food was scarce. Man learned how to gather the seeds of these plants, and put them in the ground close to his dwelling so he could tend and protect them from animals and other tribes of people. At this point, students made a model of a Stone Age community which consisted of dwellings in which several families lived together, small plots of cultivated land; which also showed the use of fire, fish and meat hanging and being cooked, and samples of the tools man used to hunt, carve, and farm.

Students agreed that at this stage, man's influence on the land was minimal. But as men learned to live together, population increased. As the size of the tribes increased, more people had to be fed and clothed. Clans and tribes began to raid each other for food. Man learned to domesticate animals, which he then used for food or to help him hunt. These animals also had to be fed. Men then built forts in which all members of the community lived, stored their food and housed livestock. The land around the fort was cleared and planted. As more and more land was needed to feed the people and their livestock, skills evolved and men became specialists in what they did. The fort had carpenters, stone masons, weavers, soldiers, farmers, merchants, and rulers.

The students made up a story and role-played what might have been the daily routine at a fort. Early morning began with crop tenders and herdsmen going out to the fields and pastures. Soldiers accompanied them to protect them from other clans which occasionally raided neighboring communities for food and wealth. The rulers of the fort made and enforced laws by which the community abided. They also judged violators and pronounced punishment. These rulers eventually became kings or chiefs who were in charge of soldiers. Merchants and craftsmen were included in the story and acted out.

The teacher then continued the story of man. As skills and technologies developed, men began to trade. Through trading and talking with each other, they brought back to their communities new knowledge. Man learned that knowledge was power. Eventually, he learned to travel over land, over and under water, and in the sky. He cut down trees to build homes and ships. He leveled mountains to take the metals and minerals he needed. He cleared forests to grow his crops and graze his stock. When he needed more land he built dikes, and pushed aside the sea to grow his crops, and build his homes, towns and cities. He built dams to control floods, store water and supply his communities with electricity. He made canals to bring water from his dams (where it was plentiful) to dry places. He irrigated the dry places and raised crops that had never grown there before. He paved the streets of his communities and the highways he traveled on, and even the airports he used. The teacher stressed that man would not have been able to change the land for his use if he hadn't learned to cooperate and work with his fellow man.

Students were asked to pick out land that man has changed the most. They reasoned that the land in remote areas has changed little. The land that has been changed the most is the place where man makes his home. The teacher helped them see that the more people there are, the more the land is changed (ranch houses as opposed to towns, towns as opposed to cities, cities as opposed to megalopolis).

The teacher told the students that they would tour the neighboring community or village to see how man changes the land so he can use it.

ACTIVITY ELEVEN

The Land In the Village

The class toured the village, observed the various buildings, and with a Polaroid camera, took pictures of the major structures. The teacher asked questions similar to the following:

What was the village land like before the village was built?
What is the village land like now? Describe what you see.
How is village land different from home and school land?
Are buildings bigger or smaller than country homes?
What materials were used to make the buildings?
What are the streets and sidewalks made of?
How do you think the building would feel if you touched it?
How are the buildings used?
What takes place inside them?
Why are water, electricity and heat needed in buildings?
Where do buildings get water electricity and heat?

Back in the classroom the students labeled the pictures and put them on the bulletin board. Students were then asked to select buildings which were made of the same materials, and the pictures were re-grouped accordingly.

The following day, the class went for a walk to look for samples of the materials used in the buildings. These materials were put in clear plastic bags and used as reference materials for discussion. The teacher asked the students if there were any materials used in the buildings that could not be found in the local area, expanding through discussion the idea that some of the materials used may have been brought into the community from someplace else.

The class reviewed the Animal Homes book using the transparencies found in the Homes unit of People, Places and Things. The teacher then asked the students to compare the materials in the animal homes with the materials available in their area and with the materials used in the community buildings. Questions were:

Do animals have any materials in their homes that are not found in the immediate area?

Do we have materials in our homes that are not found in the immediate area?

Name some of these materials.

Where do they come from?

Did man have to change the land to get, make and transport these materials?

How did he have to change the land?

Why do different buildings have different things in them?

ACTIVITY TWELVE

Buildings and Their Uses

Children were assembled around the bulletin board and the teacher asked, as she pointed to the photos students had taken of buildings:

Why was this building constructed?

Who works in this building?

Who owns this building?

What kind of work do people do in it?

After this discussion, the class went to the village and talked with many of the workers. They watched various kinds of work in progress and walked through several buildings. They noted that a garage is built differently from a hospital, and the hospital is different from the drug store.

They toured sanitation department offices and garages, the water supply and sewer systems, an electrical plant and other community services and systems. Children saw that people have different responsibilities. The fire chief does paperwork and talks to the mayor and his councilmen about fire hazards and laws to eliminate these hazards. The firemen themselves maintain the fire equipment and fight fires. The teacher pointed out that the mayor had the authority to tell the fire chief what to do and the chief supervises the firemen. The mayor is responsible to the citizens of the town who have given him the authority to make decisions (with the help of the council) about managing the village, just as the chief of a tribe is leader of his people and the principal of the school is responsible for the school's operation.

The children discussed why some people prefer some kinds of work and other people prefer other kinds. Some of the community and business people told the children why they chose their work and the advantages and disadvantages they have discovered about their jobs.

When the class returned to school, the students rearranged their photos of buildings so that all facilities with similar purposes were grouped together under headings such as recreation, services, selling, etc. During this classification of buildings, the students learned that some buildings have a multiple use. Volunteers drew some duplicate pictures to add to the proper categories.

As a group project, children composed stories describing the uses of buildings and the kinds of things done in them. They then created another story about the authority and responsibilities of certain jobs in the community, i.e., a supervisor's job and his relationship to the employer and employees. Next, short films and video tape clips were used by the teacher to show people engaged in varying activities in local stores and/or buildings. Students were asked to identify the kind of work being done, where the work was taking place, whether the person was a laborer, foreman, administrator, customer, etc.

ACTIVITY THIRTEEN

The Old and the Present Villages

The class decided at this point that they wanted to find out about the villages that existed in their area long ago. A tribal patriarch was enlisted by the tribal council to serve as a resource. He explained that old villages were laid out so that people could protect themselves from sudden enemy attack, and so they had easy access to food, water, and fuel supplies. He took the class to the remains of an old village and told them a legend about the place. Some children found artifacts and asked what they were used for. The old man answered the questions and helped the children take pride in their forefathers' courage and skill in dealing with and overcoming the harsh elements of nature. For future use, students took pictures of the ruins and recorded the stories the old man told.

The next day their teacher showed films and played records of life as it might have been in an old Indian village. The students compared the commercial films and narratives with the old man's stories and photos they had taken. They discussed the differences between the buildings of the past and those of today, and man's dependence on food, water and fuel in both eras. They also compared the roles of the chief, his counselors, the medicine man and the hunters with local civil authorities. The teacher brought the discussion back to modern buildings:

> Why are they constructed the way they are?
>
> Who decided on their location in the village?

The class decided to construct models of both the old village and their present community. To start, they reviewed the types of materials used by both communities for distinguishing features and landscaping. Children were divided into two groups, and the teacher listed on the blackboard their responses about the style of architecture, materials used in construction, building sites, the availability of roads, airports, water, disposal and electrical systems for the present community, as opposed to the building style, materials, sites, waterways, trails, and water, food and fuel of the old village. Each model was laid out as realistically as the students' skills allowed.

ACTIVITY FOURTEEN

Home, School and Community

The children decided they would like to continue adding to their models by creating a replica of the school building, its facilities, classrooms and landscape. The students and teacher reviewed the shape and size of the building, the number of classrooms, layout of hallways, etc., as preparation. Aides were available to take small groups of children to tour the building both before they began and while they were building the model.

The school building was located by its direction from the village. After the completed building was set up, the playground, flagpole, walks, and landscaping were added. And finally, figures of staff and students were placed in and around the model.

The children discussed the different types of work people in the school and community perform. They visualized the school as a small community or village, and compared the function of the school's facilities with the utilities and services available in the community. The following analogies resulted from this comparison:

School	Village
Wastepaper basket and garbage	Sanitation Department
Lunchroom	Restaurant
Plumbing	Water and Sewer systems
Lights	Electrical system
Repair of damaged equipment	Parks, Roads and Building Maintenance
School fire alarm	Fire Department
Supply and storage room	Retail stores (food, clothing supplies)

The class then compared the roles of family members with those of the school staff, village government and tribal government.

Family	School Staff	Village Gov't	Tribal Gov't
Father	Principal	Mayor	Tribal Leader
Mother	Teacher	Councilman	Tribal Council Member
Brother	Aide	Dept. Supervisor	Committee Member
Sister	Secretary	Super.'s Assistant	Subcommittee Member
Uncle	Custodian	Dept. Employee	Tribal Elder
Aunt	Nurse	Nurse	Medicine Man

Children also compared the responsibilities, tasks and authority associated with each kind of job.

ACTIVITY FIFTEEN

Post-Test

Note: The teacher should review the Pre-Post test instructions and Evaluation procedure, pp. 25-35, before beginning this activity.

The teacher began the Post-test activity by distributing the Activities Portfolio used at the beginning of the year and dividing the class into groups of 4 or 5 students. She asked the students to remove the test from the left-side pocket of their folders, told them to examine the cover of the test booklet, and indicated that they would play a game similar to the one they played at the beginning of the year. Students opened their books and the teacher read the directions exactly as they occurred in Activity #3 of the Homes unit. She waited until all students had completed each item before she moved to the next task. She circulated around the classroom giving help to individuals by clarifying questions and offering encouragement.

At the completion of the test, students were assigned to collect the Post-test booklets and place them on her desk. She informed the class that they had just completed one portion of the game, and that the second part would be given to each of the groups in the class. As each group was being tested, the rest of the class would do some coloring.

The teacher then asked all students to remove the materials from Packet I (the symbol-matching strips and card). She next demonstrated and then asked them to color the diamond-shaped drawing on both matching strips and cards with a yellow crayon. She stated and demonstrated that rectangles should be colored red, squares blue, circles orange, and triangles green. When every child in a group finished coloring, one student was to hold up his hand.

She began the verbal portion of the Post-test with one group. As other groups finished coloring they were directed to put all their cards into one pack and shuffle them. Then one of the children dealt six cards to each member of the group. Each of the cards was to be matched by color and shape on the strips in the same manner as indicated in Activity Two of the Homes unit.

The teacher went to the students in the group she had chosen to begin the verbal portion of the Post-test. She had them arrange their chairs in a semi-circle so that each student was close to her and could hear and not be distracted. The teacher read the test questions which required verbal responses from students. As each gave answers, the teacher tallied, evaluated and recorded individual responses on her Evaluation Record form. Each answer was recorded opposite the respondent's name and in the space provided. Each correct answer was tallied with a mark (/) and recorded to the right of the tally space under the heading "Tallied Verbalizations." Tallies for correct answers and the number of responses were recorded in their appropriate spaces, as were totals for each.

At the completion of the test, the group was asked to begin coloring and then proceed to the color-matching game. Then the teacher interrupted the group which appeared to be progressing most rapidly with the color-match and administered the Post-test. She systematically tested another group while others were occupied with the color-matching activity, and so she progressed until the entire class had been tested.

During her free time she began work on the test by correcting the non-verbal portion first. She then subtracted the total number of correct responses from the total number of non-verbal items and computed a percentage score. The teacher then repeated the same procedure to obtain a verbal score. A determination was made as to where class strengths and weaknesses lay. Comparisons with the Pre-test results indicated the progress which had occurred.

ACTIVITY SIXTEEN

Party

When the testing was finished, the teacher suggested that the children show their gratitude to parents and resource people from the tribe, State Government and community by inviting them to a party which the students would give.

The class began planning the party. Committees were established to make and send invitations, design, make and hang decorations, select, purchase and prepare food, purchase paper cups, plates and plastic utensils, decide schedules and conduct party games, etc. The children, with some assistance from the teacher, decided that all the students would be on the clean-up committee. The school year ended with the childrens' party.

Appendix A

Symbol Formation

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Symbol Formation was developed by Project NECESSITIES to assist early primary students in discovering their ability to develop written language. It is intended for use at either pre-school, kindergarten, or first grade — whichever is the beginning formal learning experience point. It can be used in second or third grade for review and remedial work. See the "Teacher's Instructional Narrative" for suggested use pattern.

The illustrations are by Jason Chee,
Project artist. Mr. Chee is
a member of the Navajo tribe.

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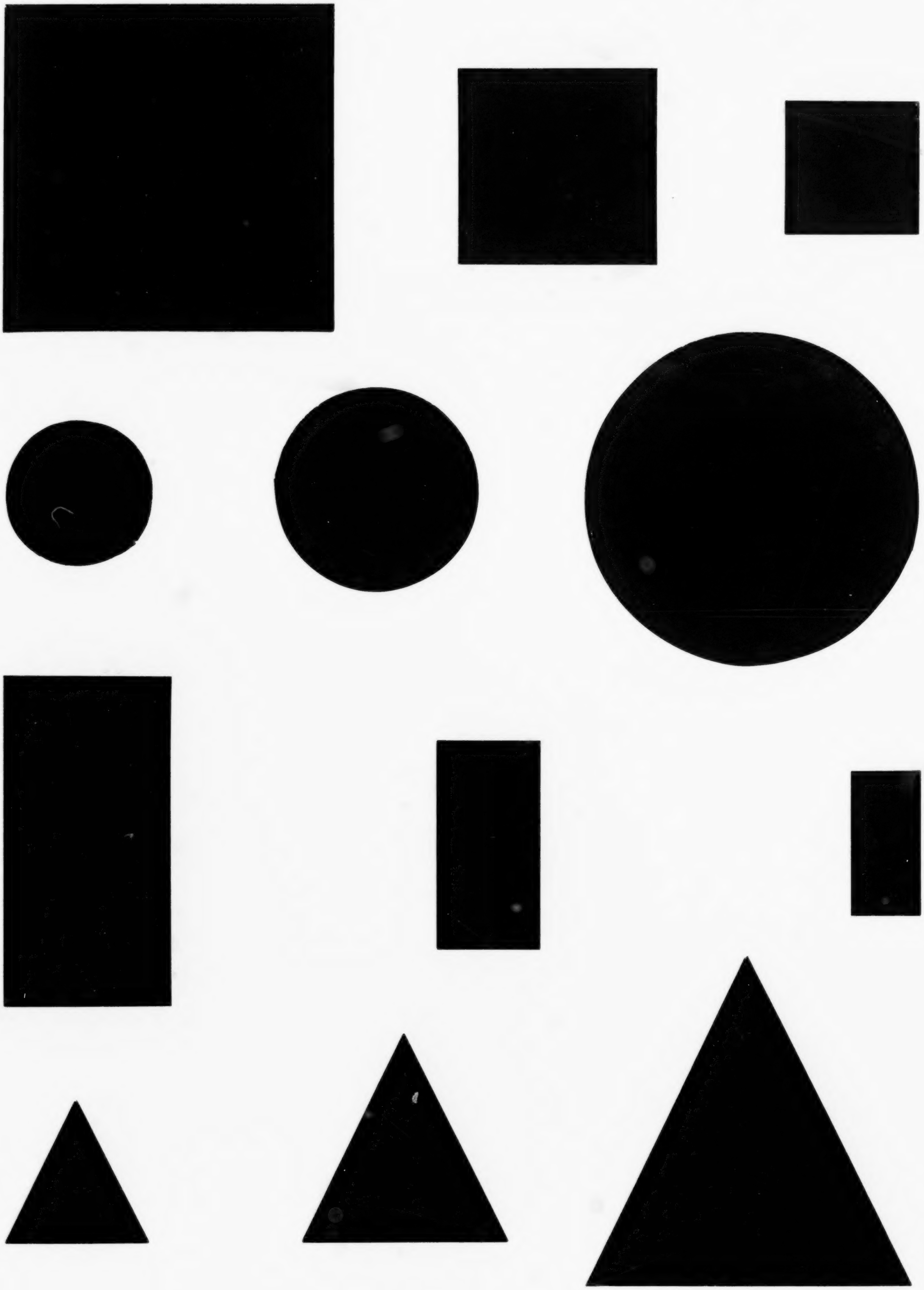

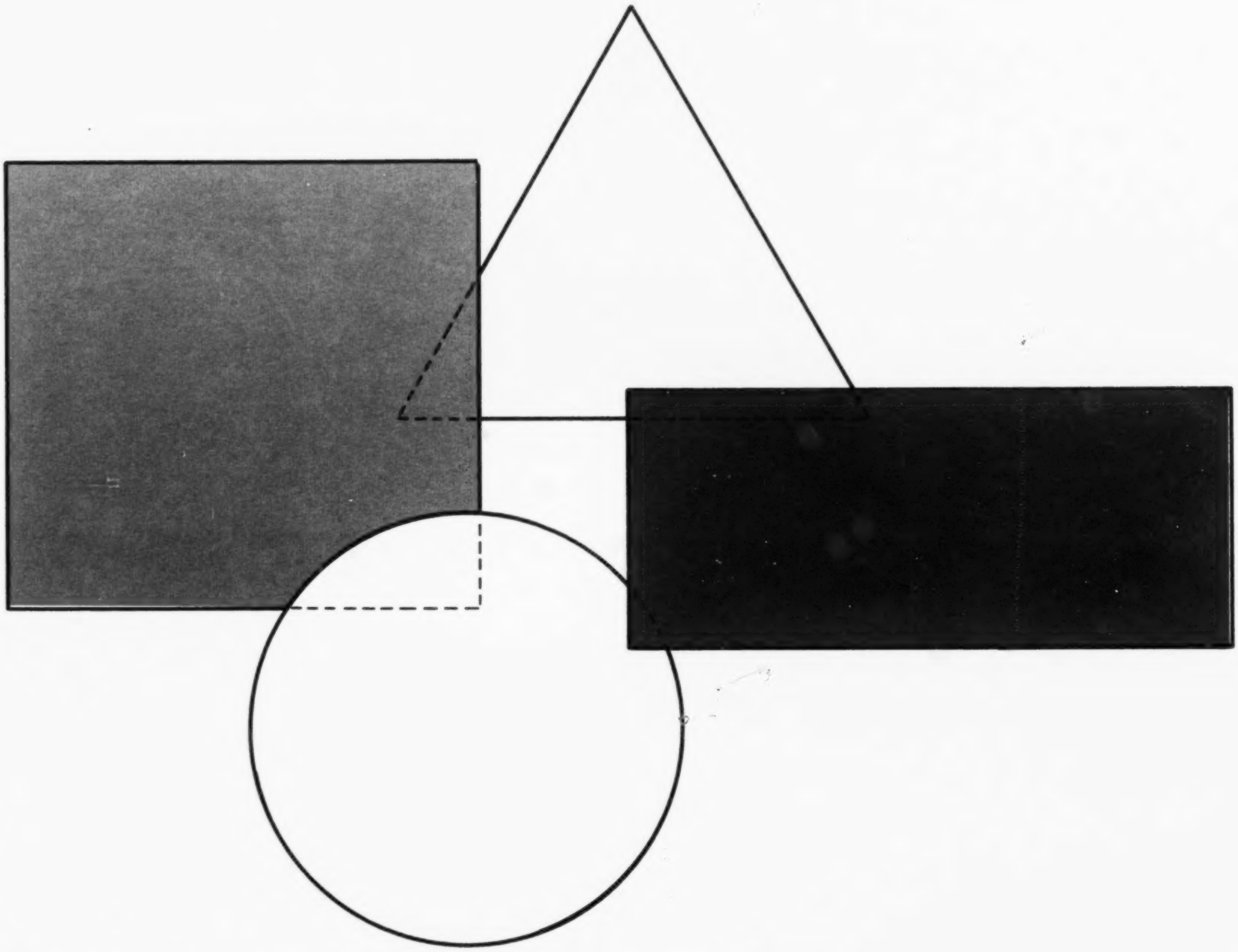

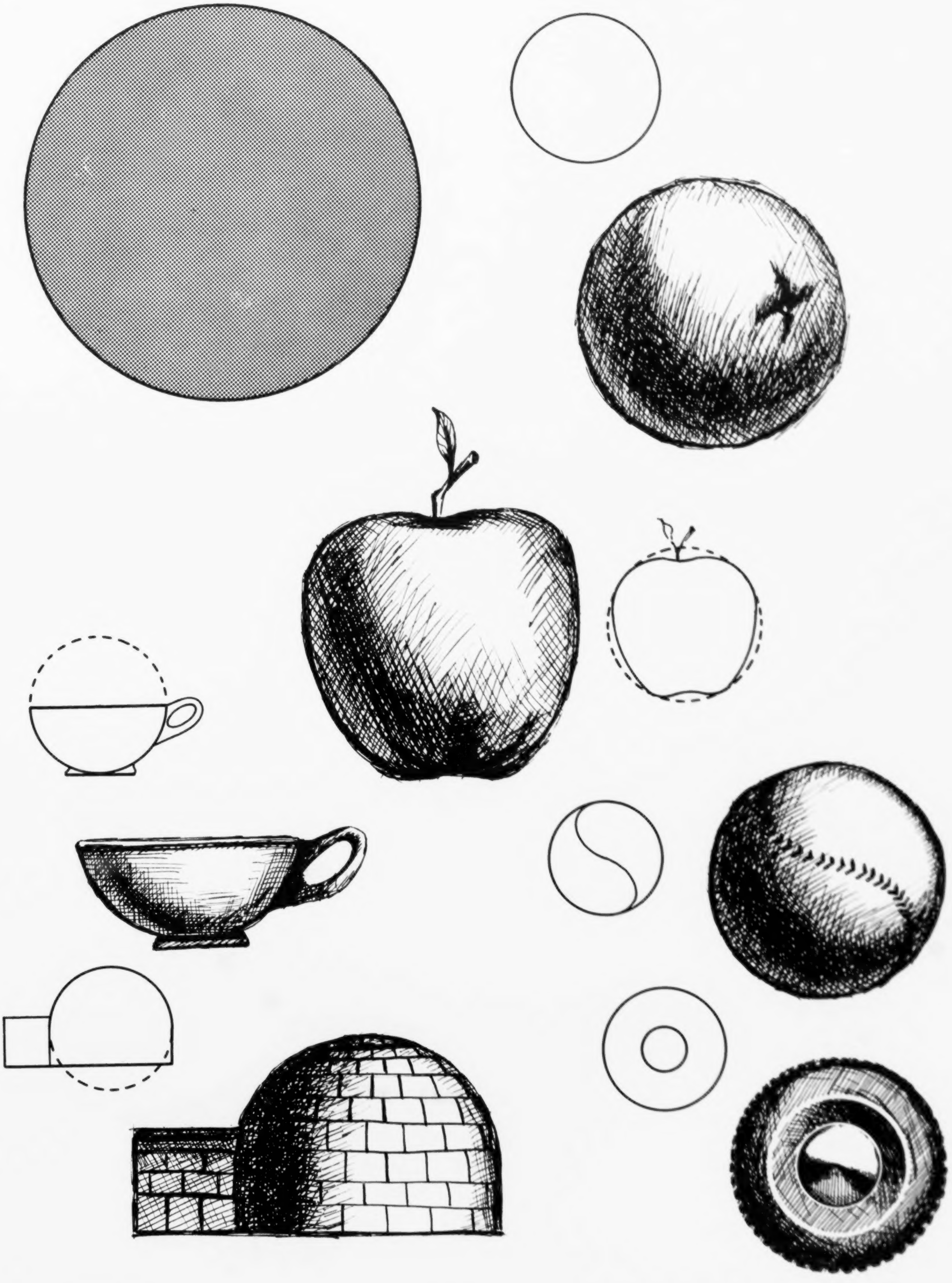

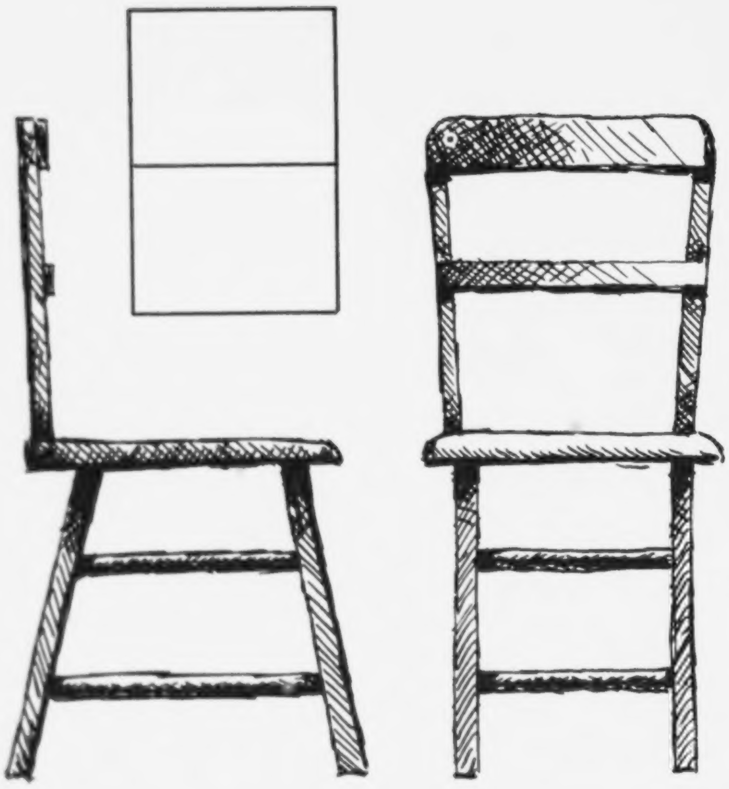

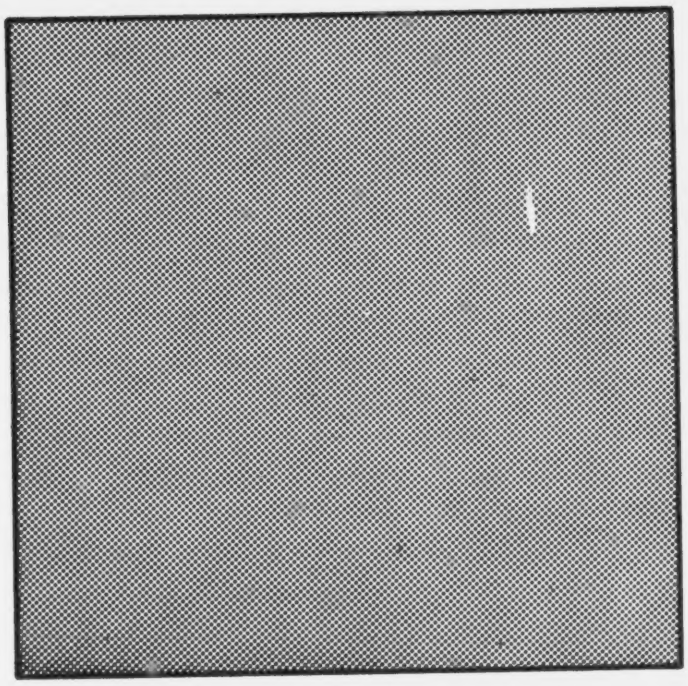

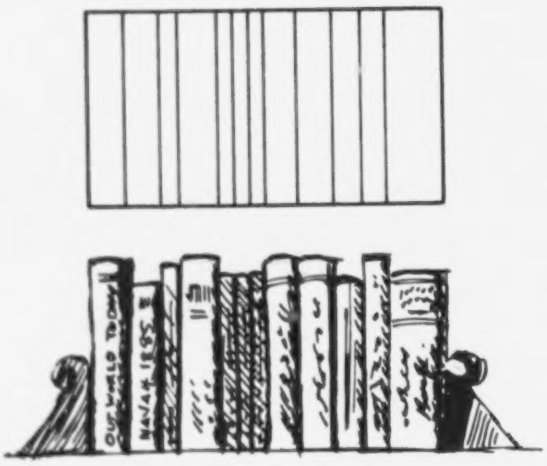

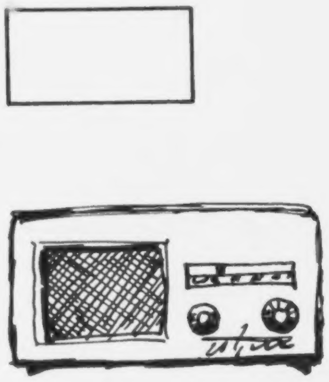

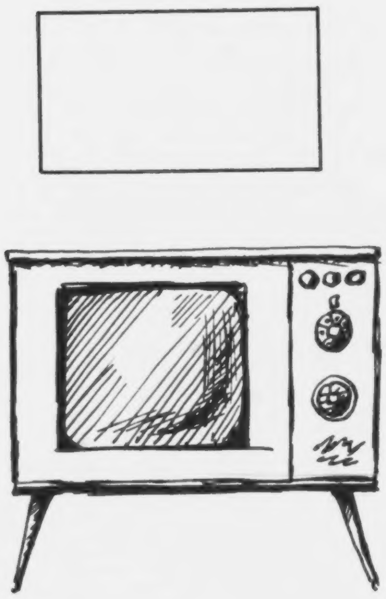

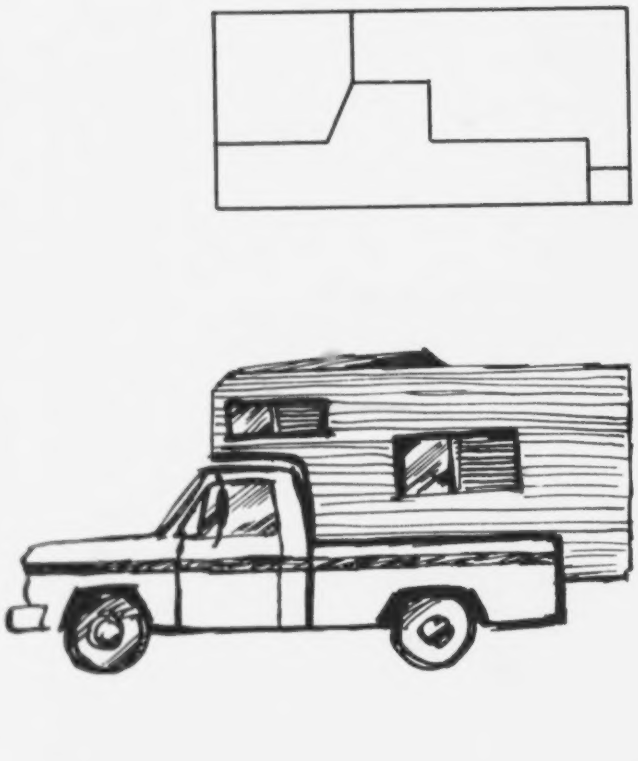

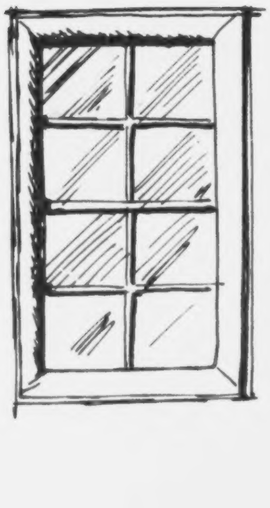

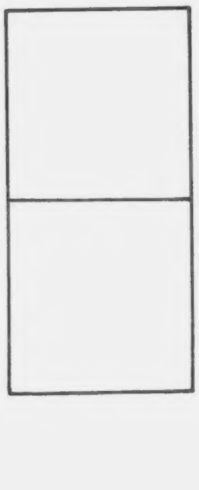

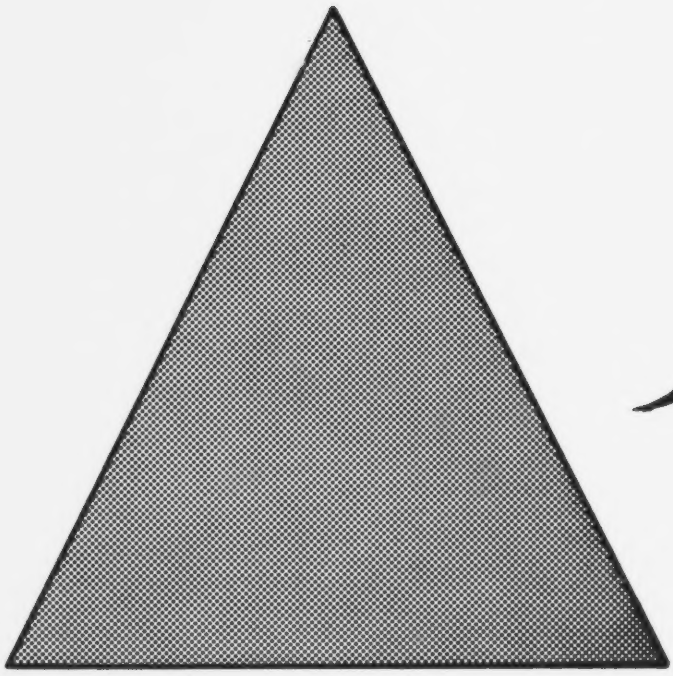

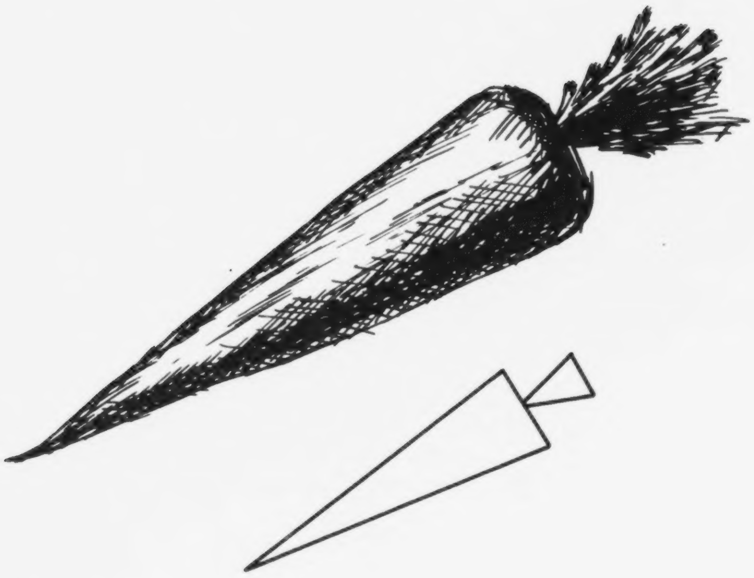

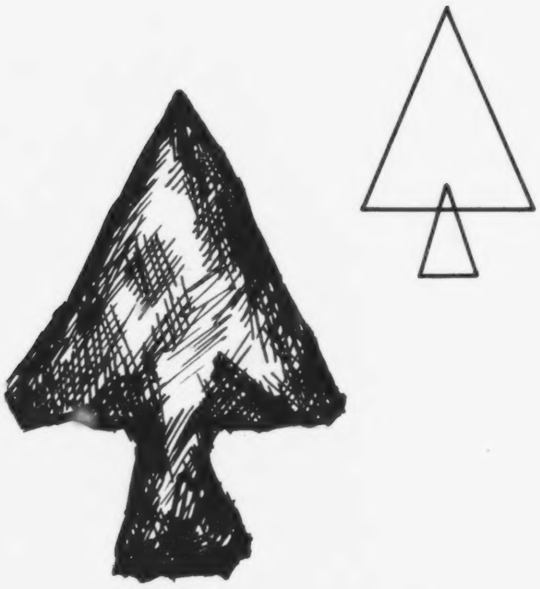

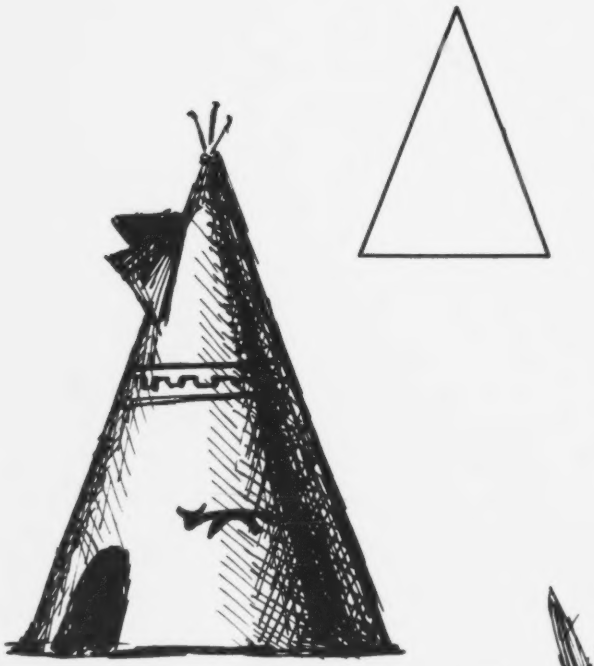

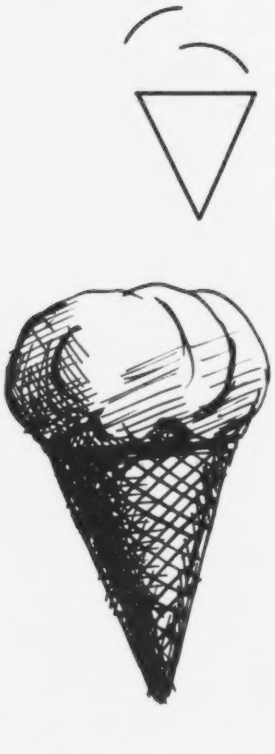

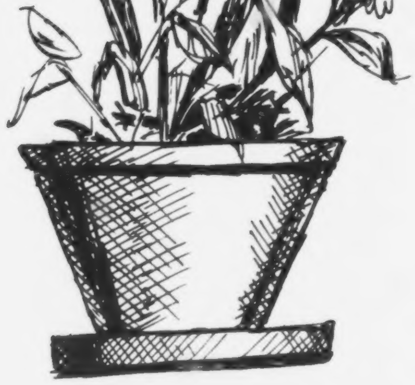

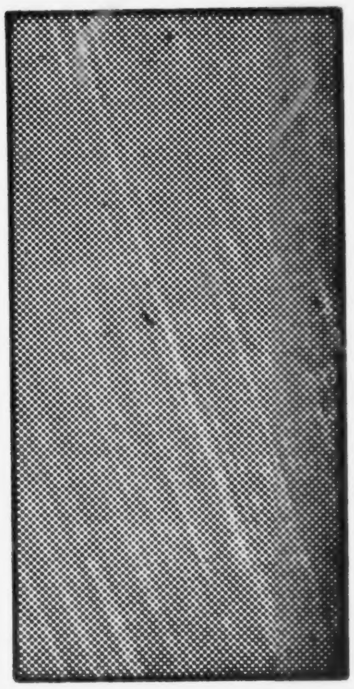

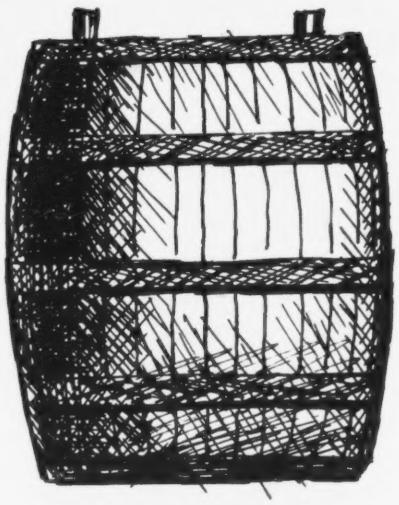

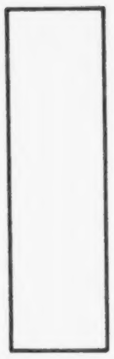

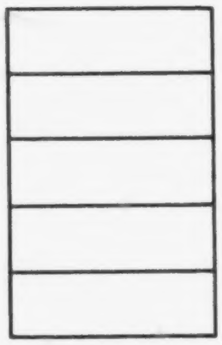

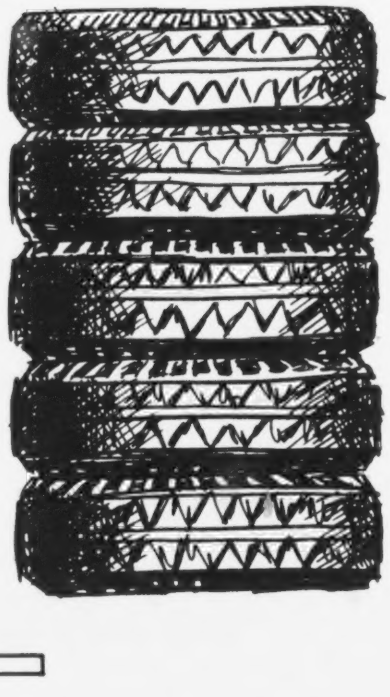

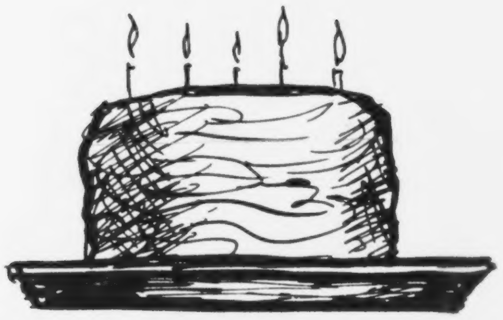

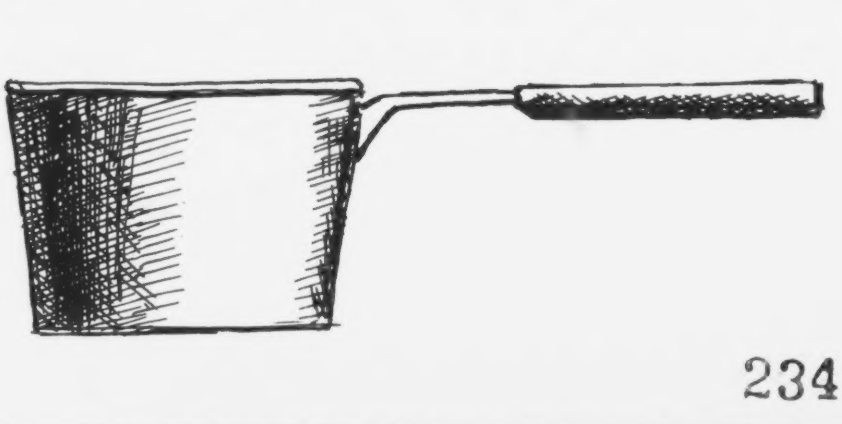

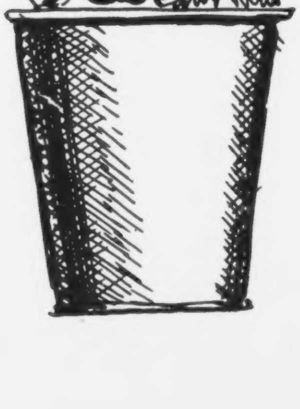

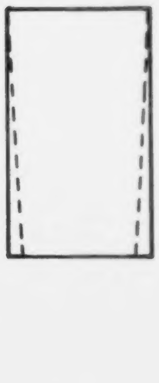

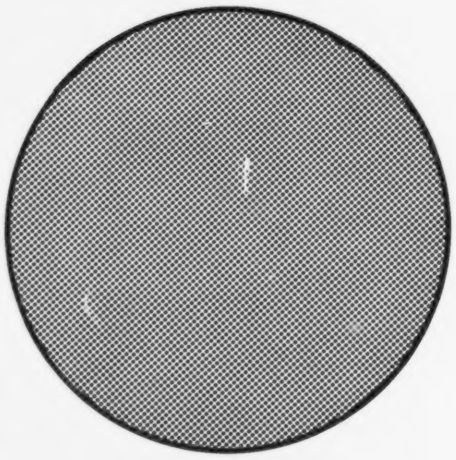

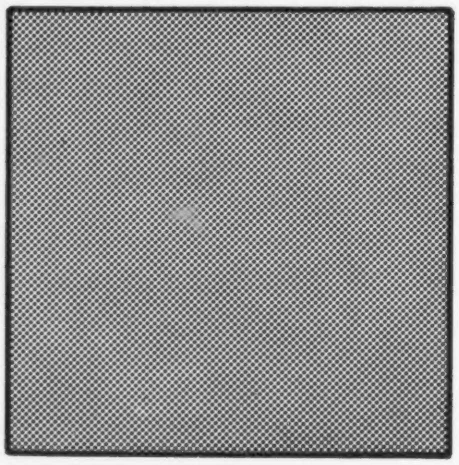

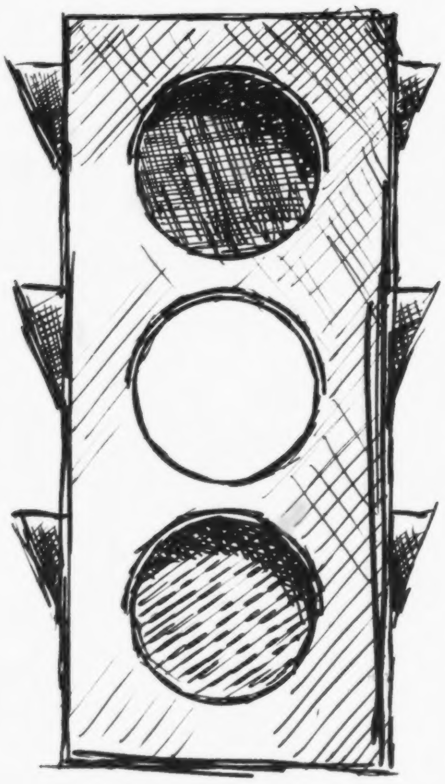

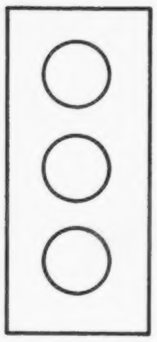

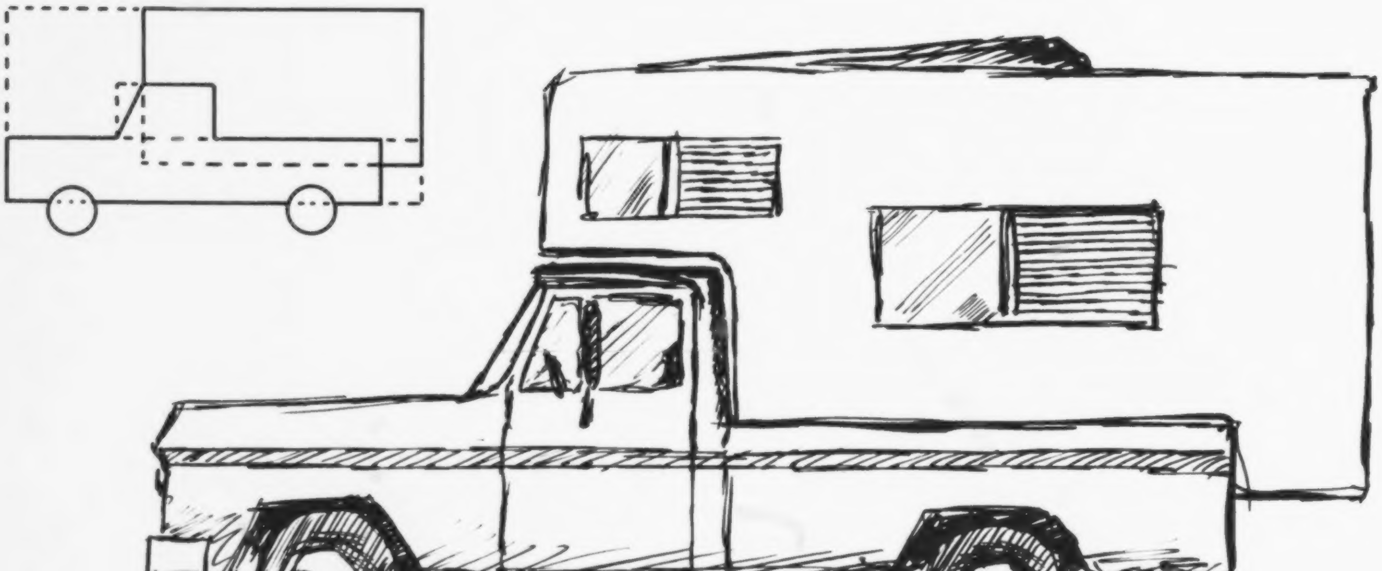

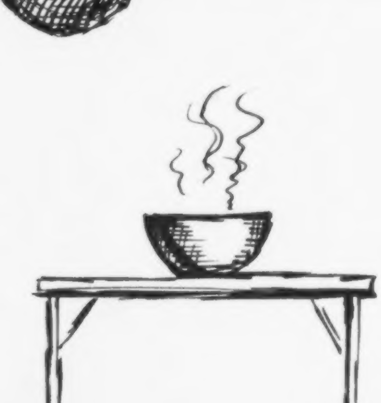

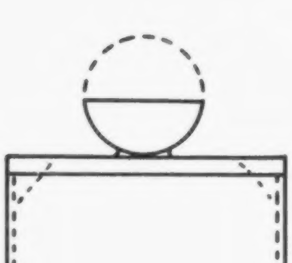

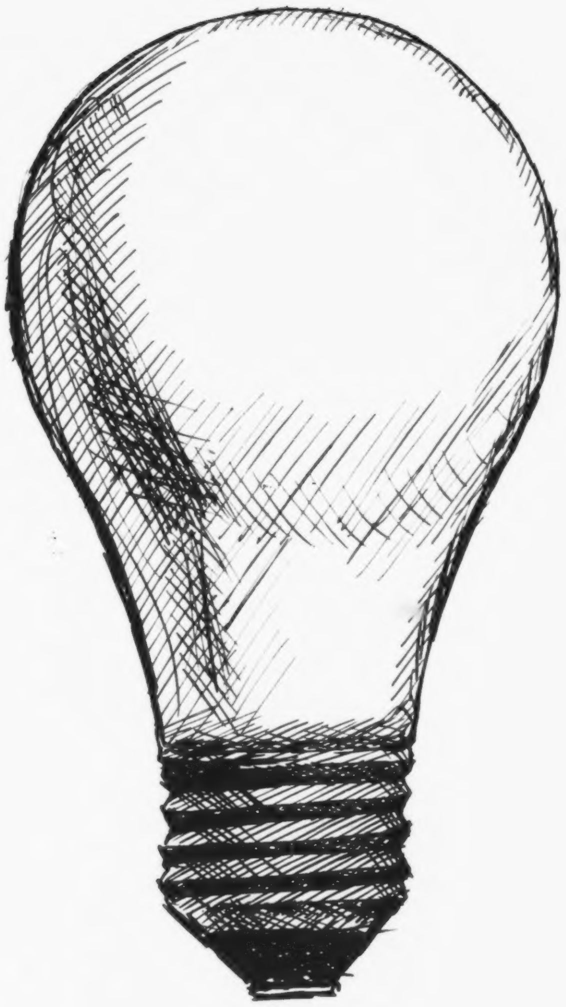

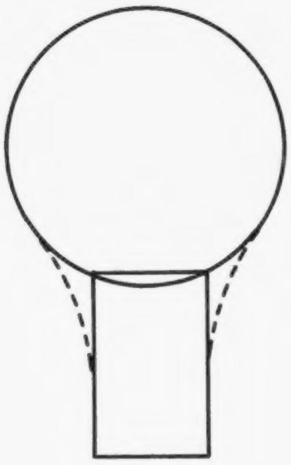

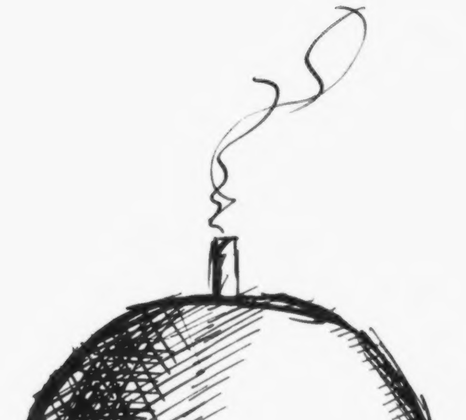

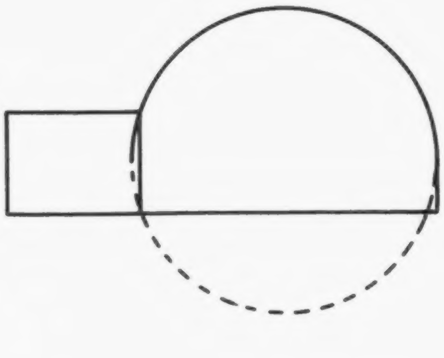

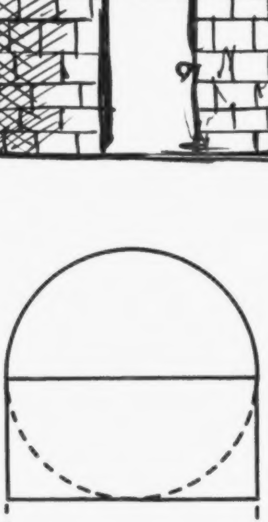

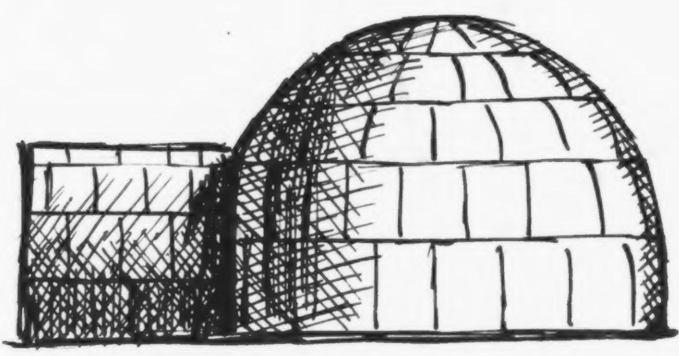

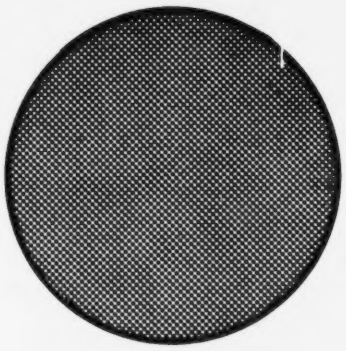

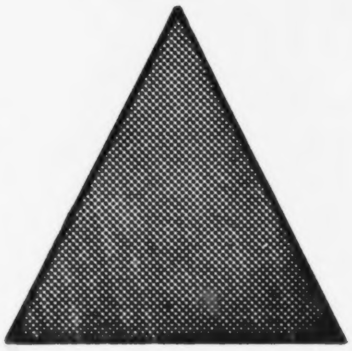

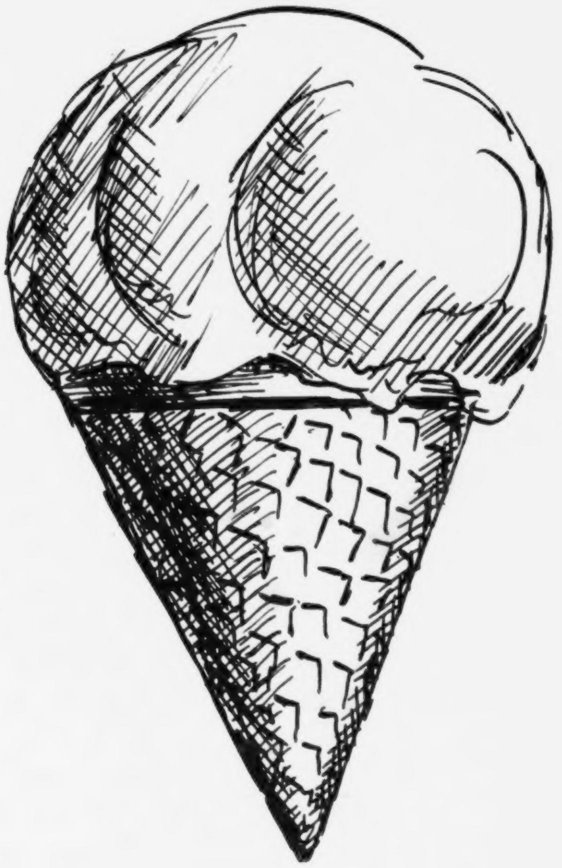

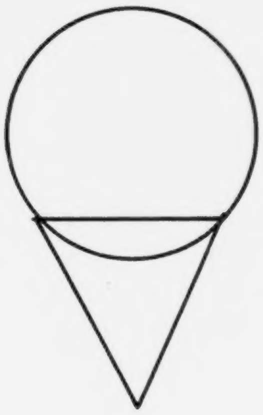

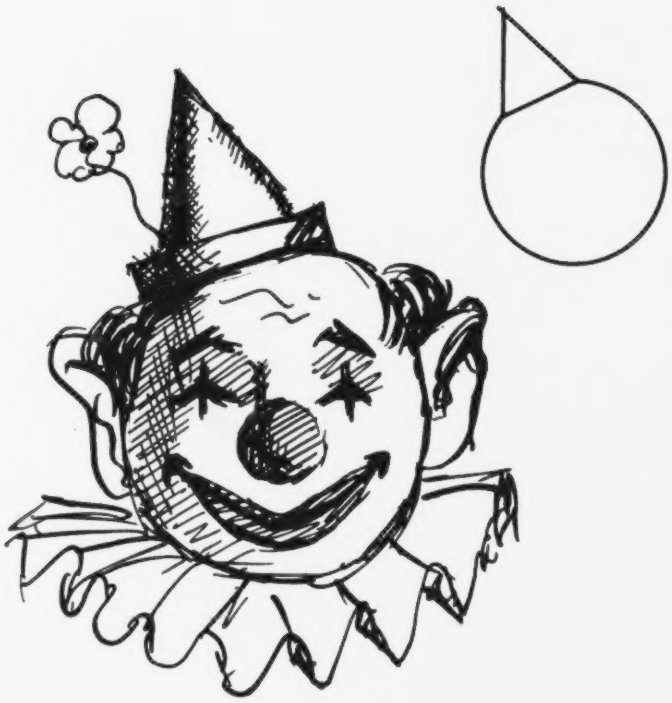

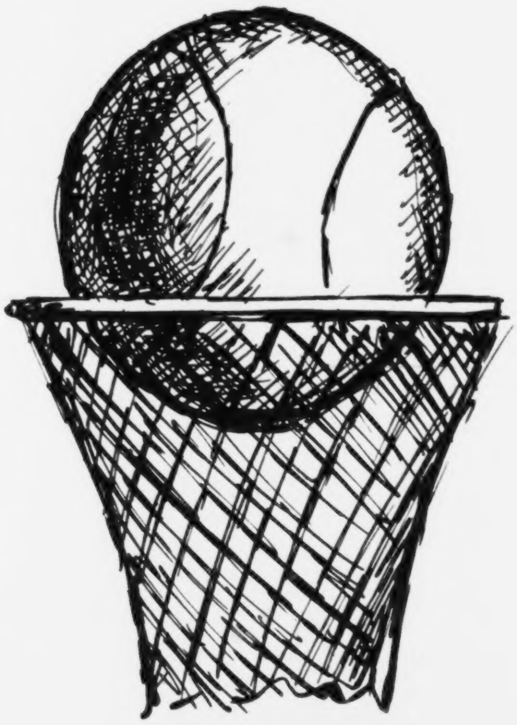

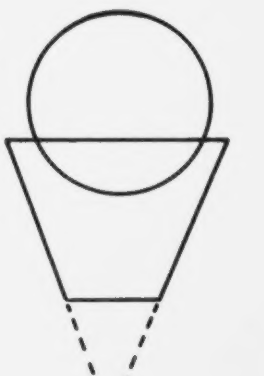

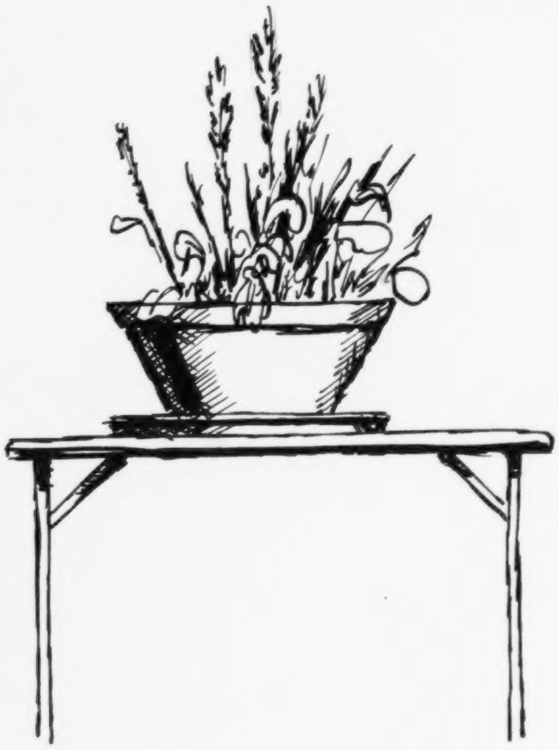

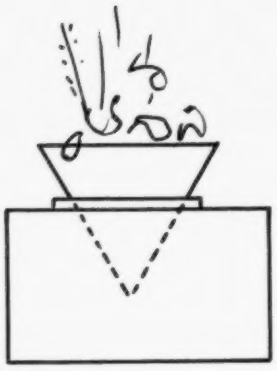

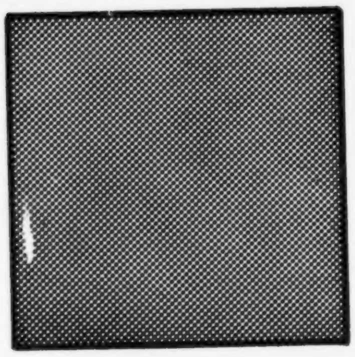

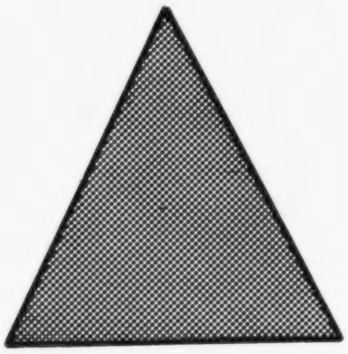

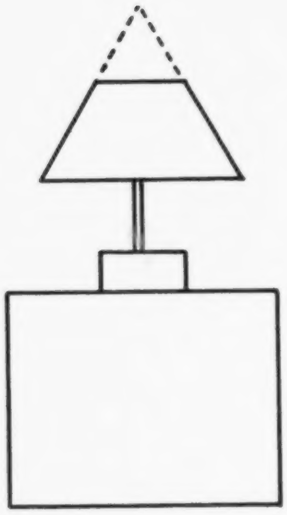

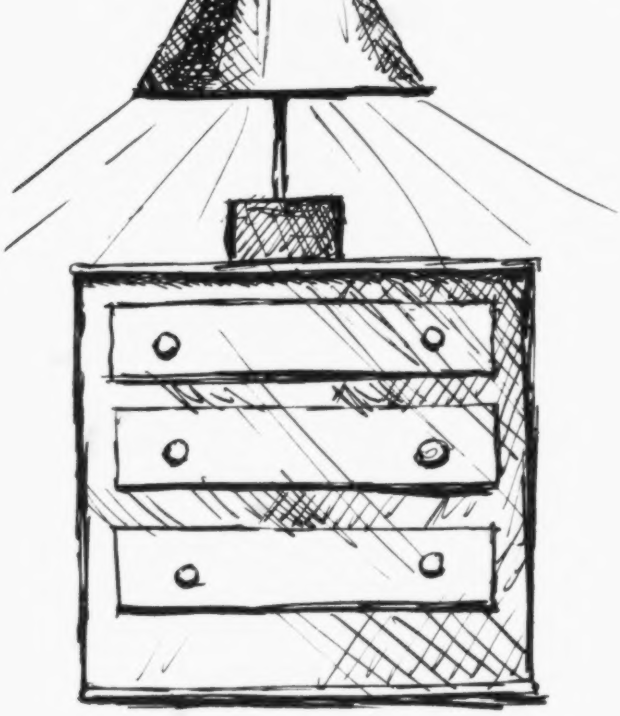

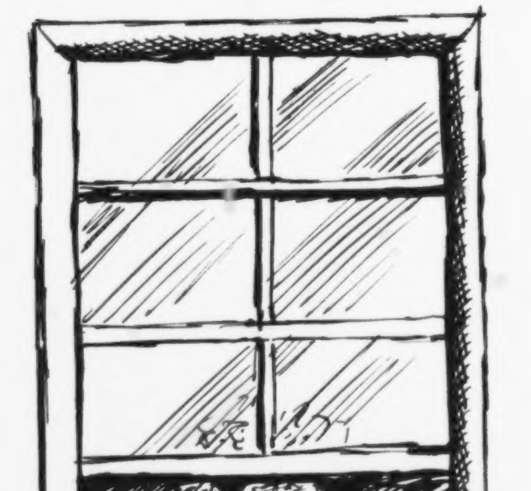

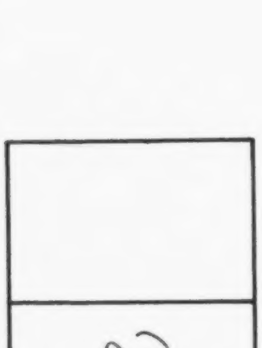

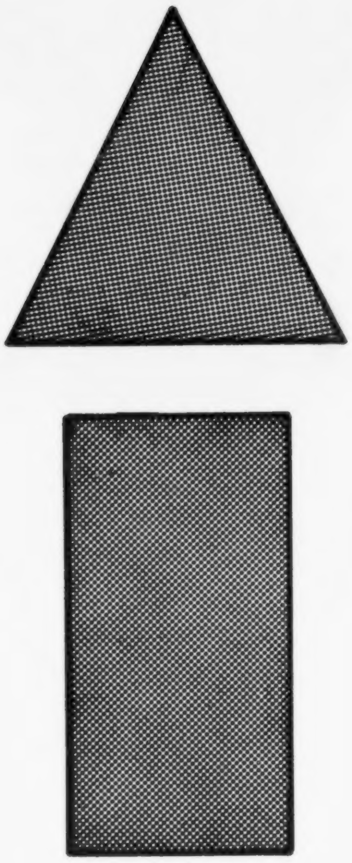

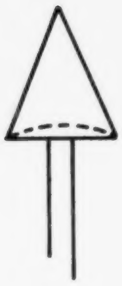

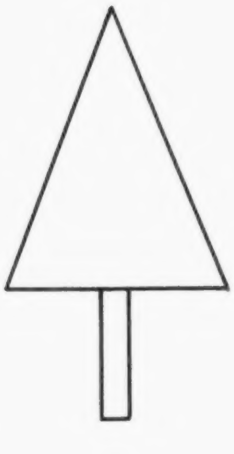

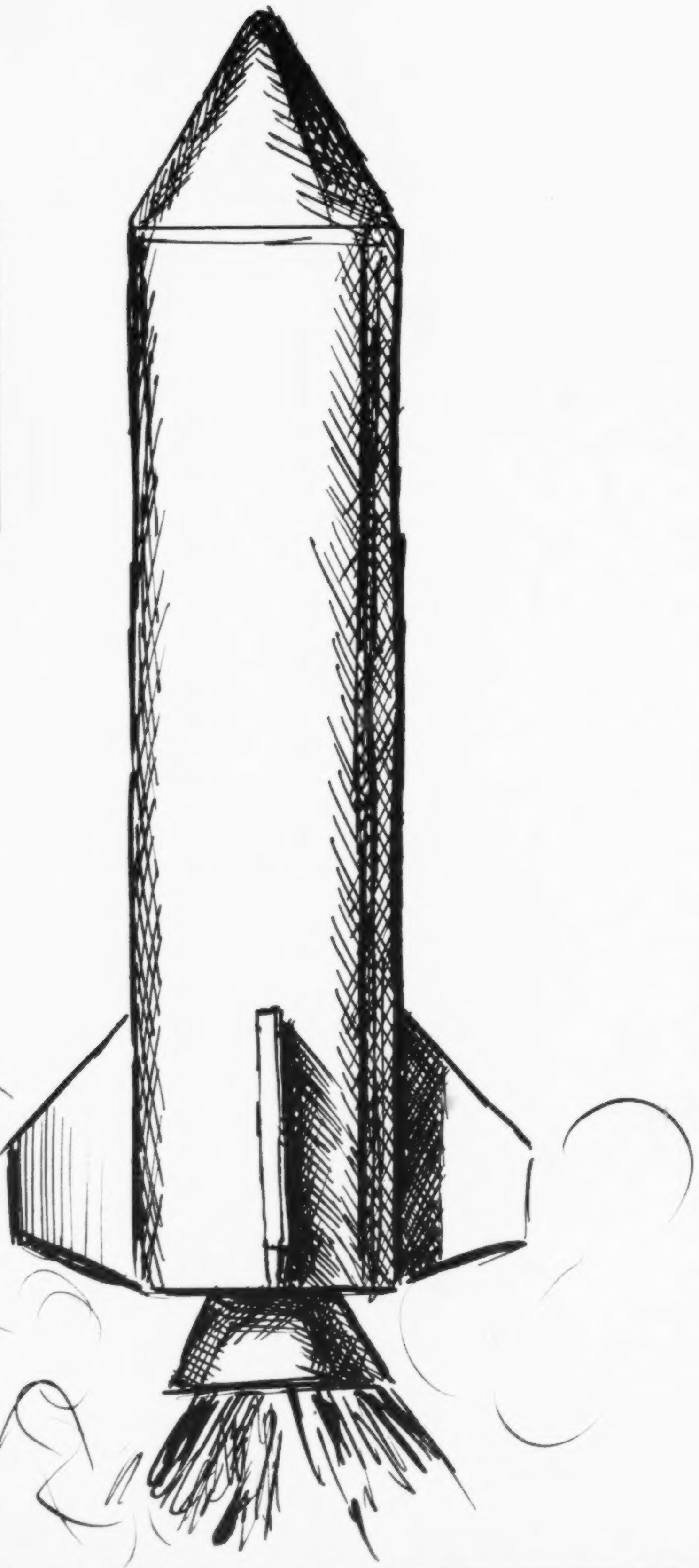

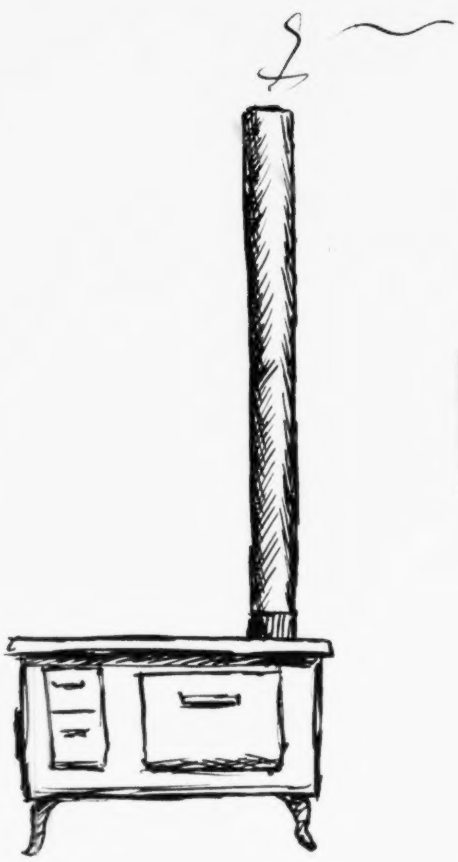

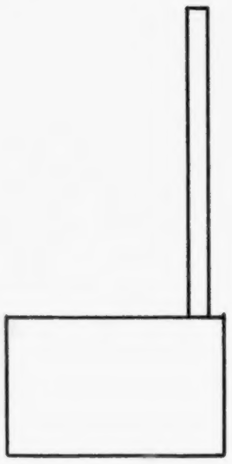

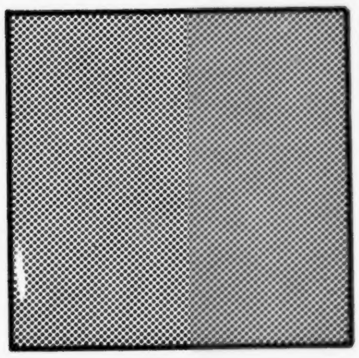

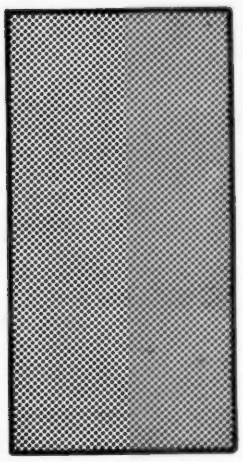

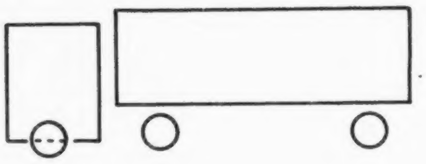

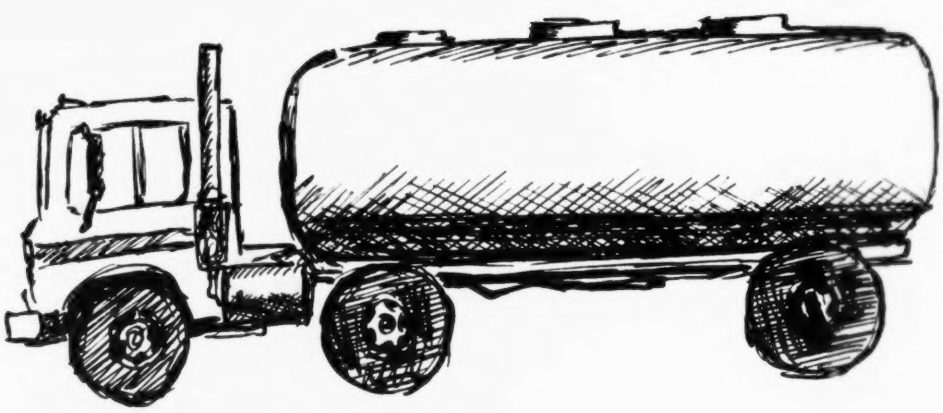

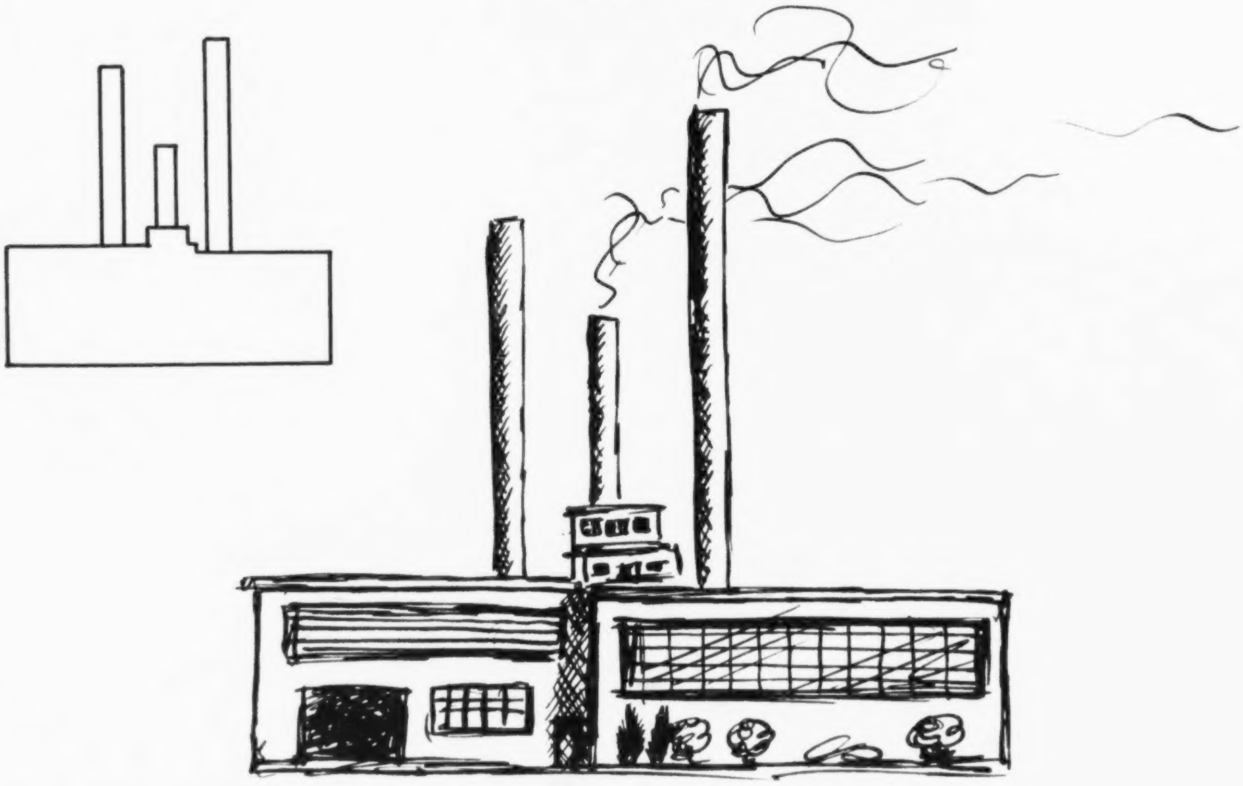

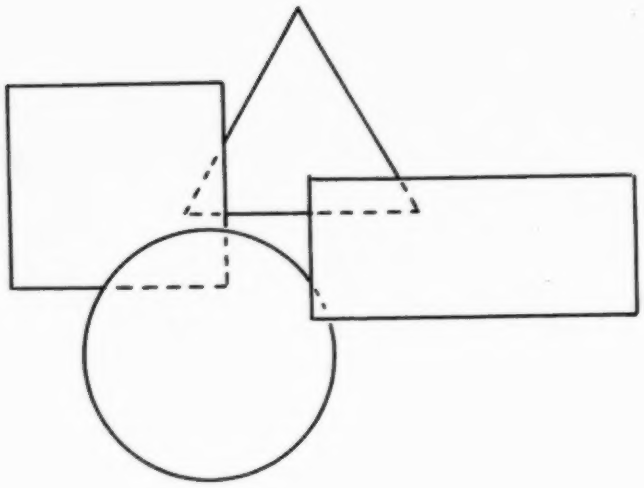

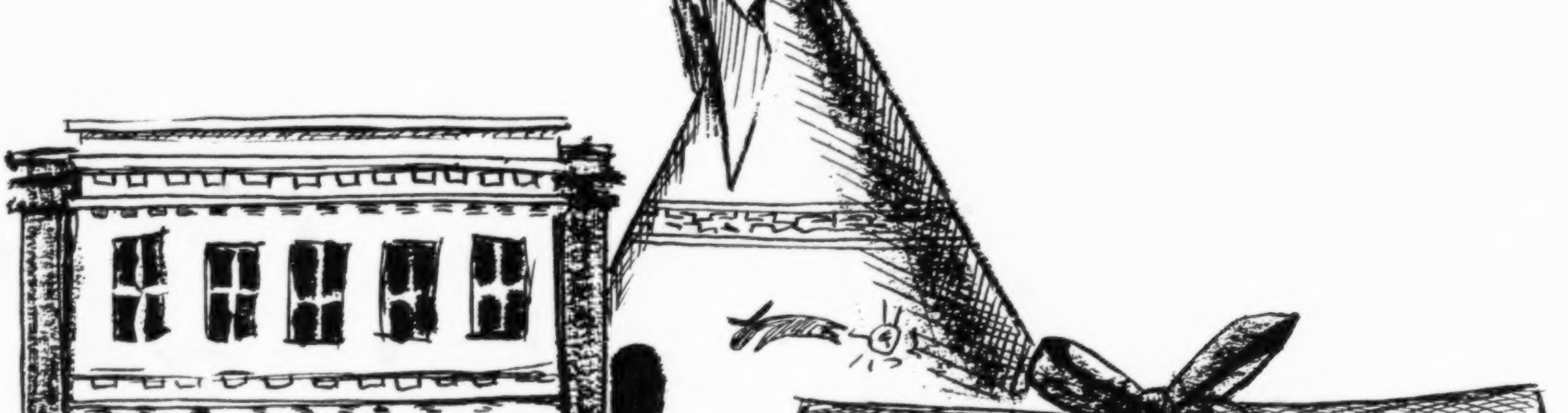

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Appendix B

An A

Alpha

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E.R.I.C.

Prepared for:

Division of Education
Bureau of Indian Affairs
Department of the Interior
Washington, D.C. 20242

By:

The Project NECESSITIES Staff of
Abt Associates, Inc.
(Cambridge, Massachusettes)
P.O. Box 575
Brigham City, Utah 84302

An Animal Alphabet was developed by Project NECESSITIES for use in the early primary grades, specifically Kindergarten. It is not necessarily intended that the set of pictures be used for direct teaching of letters and words. Research has indicated that students often have a hard time connectng a word with the object it stands for. This set of pictures speaks to that problem. It will be useful to allow children to have a lot of visual exposure to the pictures. They can be used as the basis for making up stories (try the ant and bear together). The unfamiliar ones like the kinkajou or the xenops can be used to draw children to other parts of the world. And of course the unicorn is a mythical beast of English legend. Do your children know any imaginery animals?

You may want, after the children have had some experience with the pictures, to write the word right on the pictures in the letter style you want your children to learn. You could then put the word on a separate piece of card and have the children match the right picture with the word. Then "black out" the word on one of the pictures so that there is just the animal. The most important thing is to have fun with **An Animal Alphabet!**

Illustrations by Jason Chee, Project Artist.
Mr. Chee is a member of the Navajo tribe.

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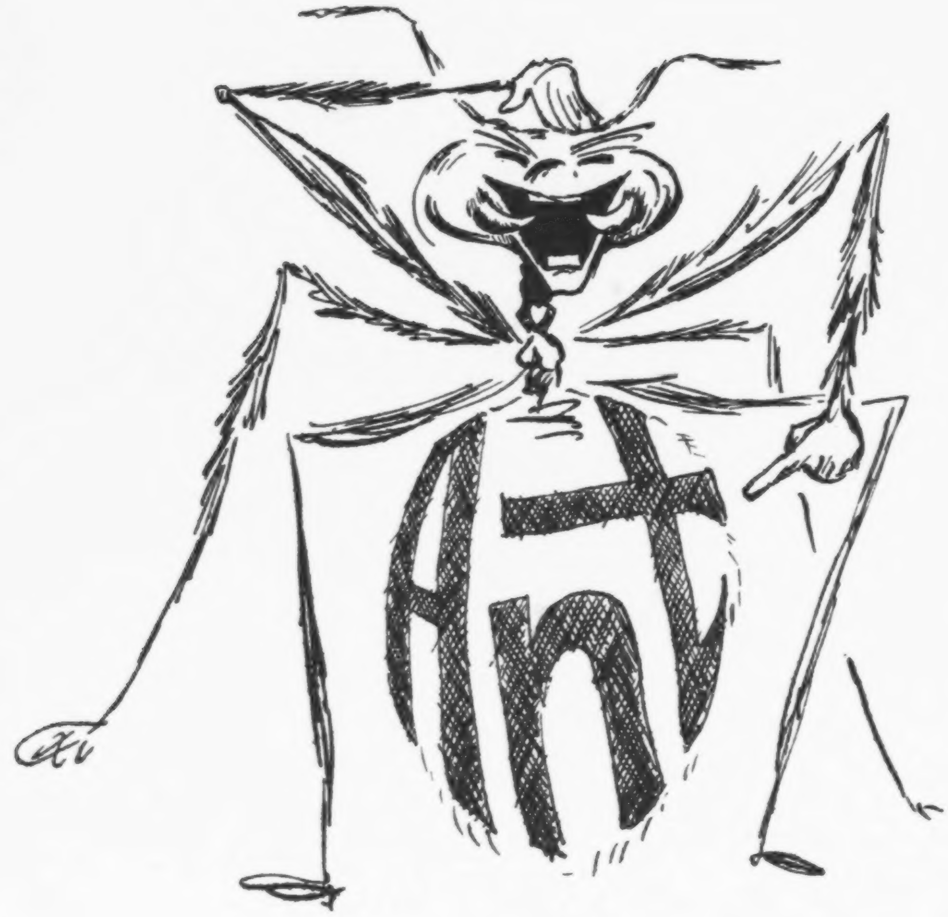

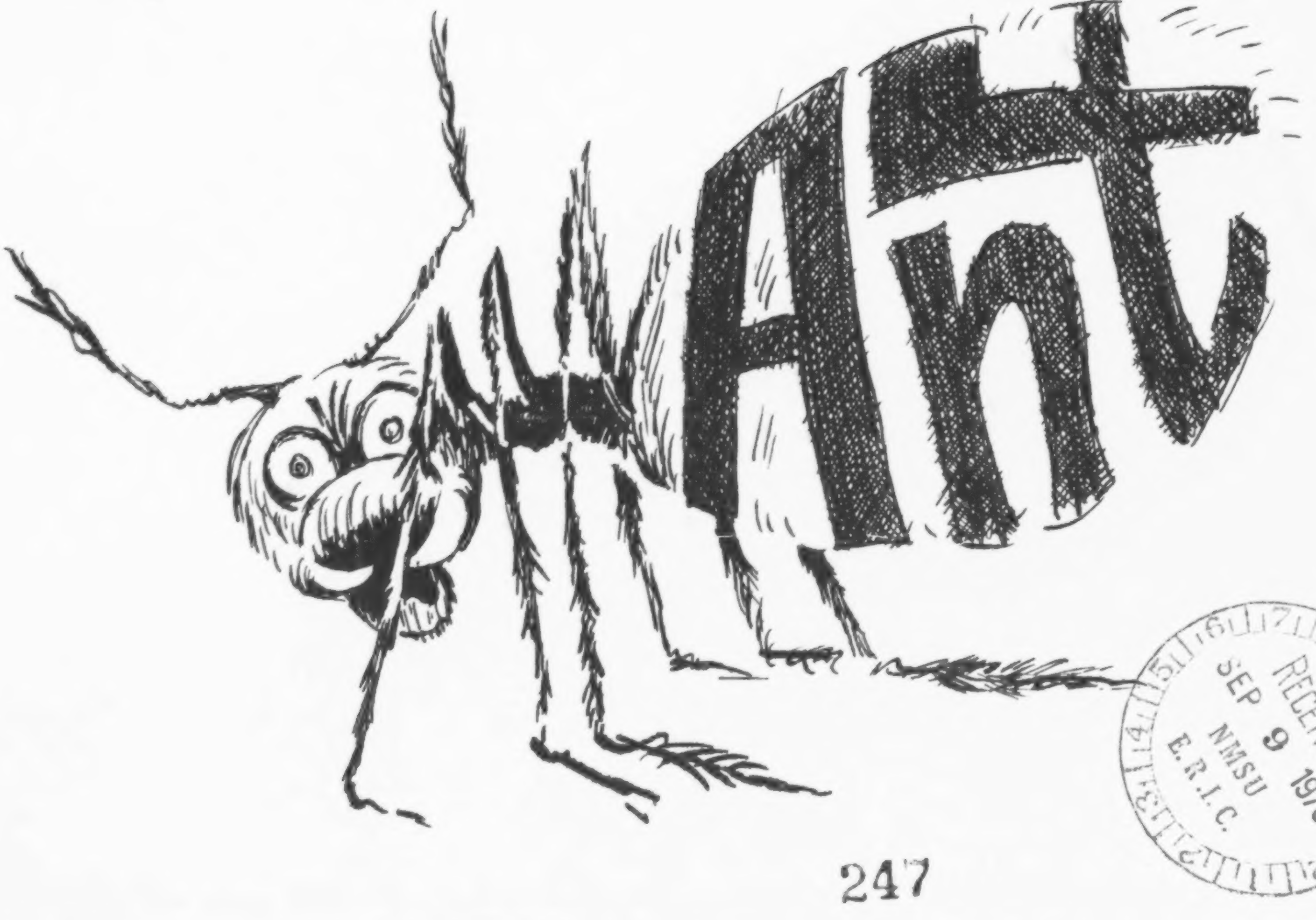

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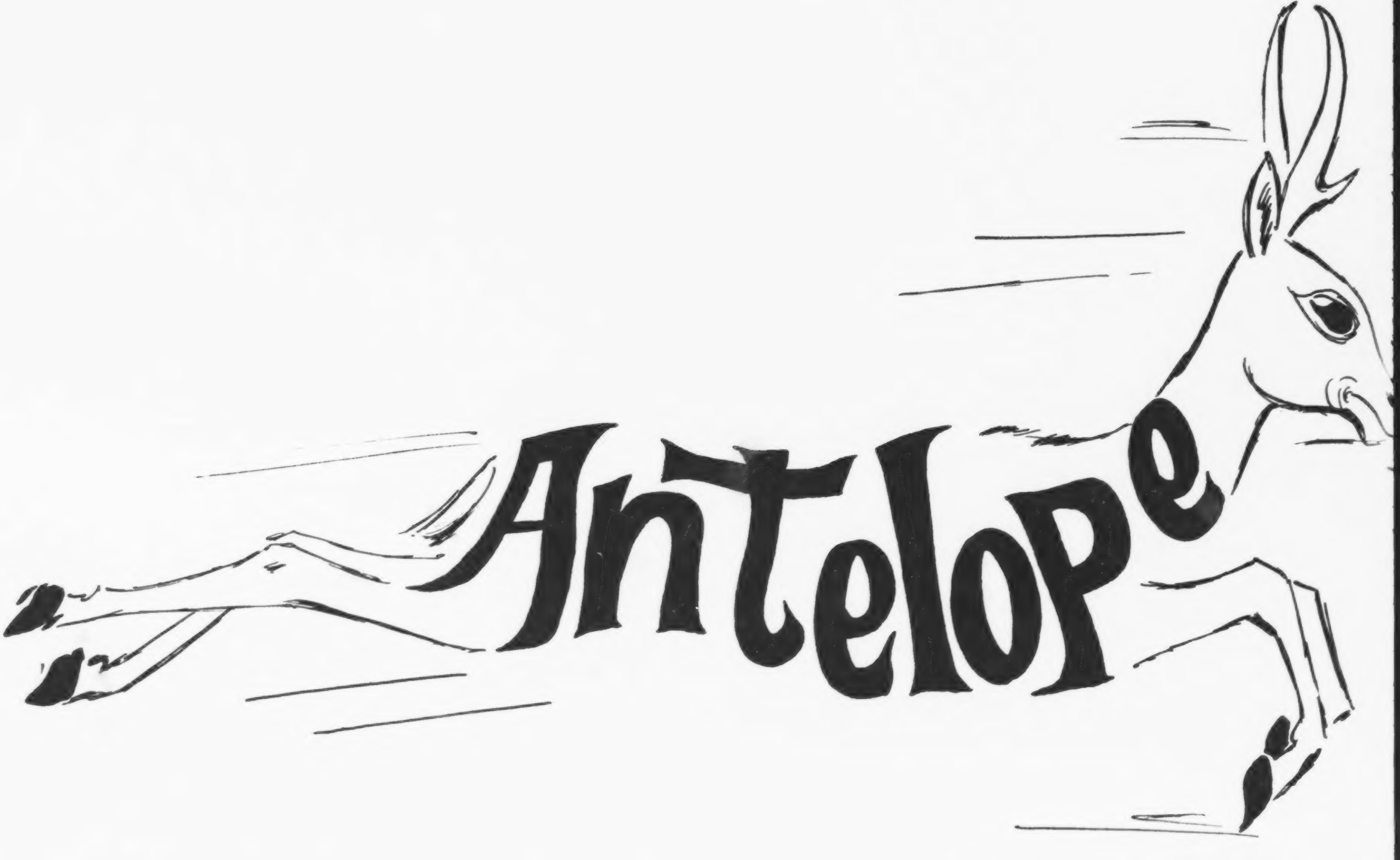
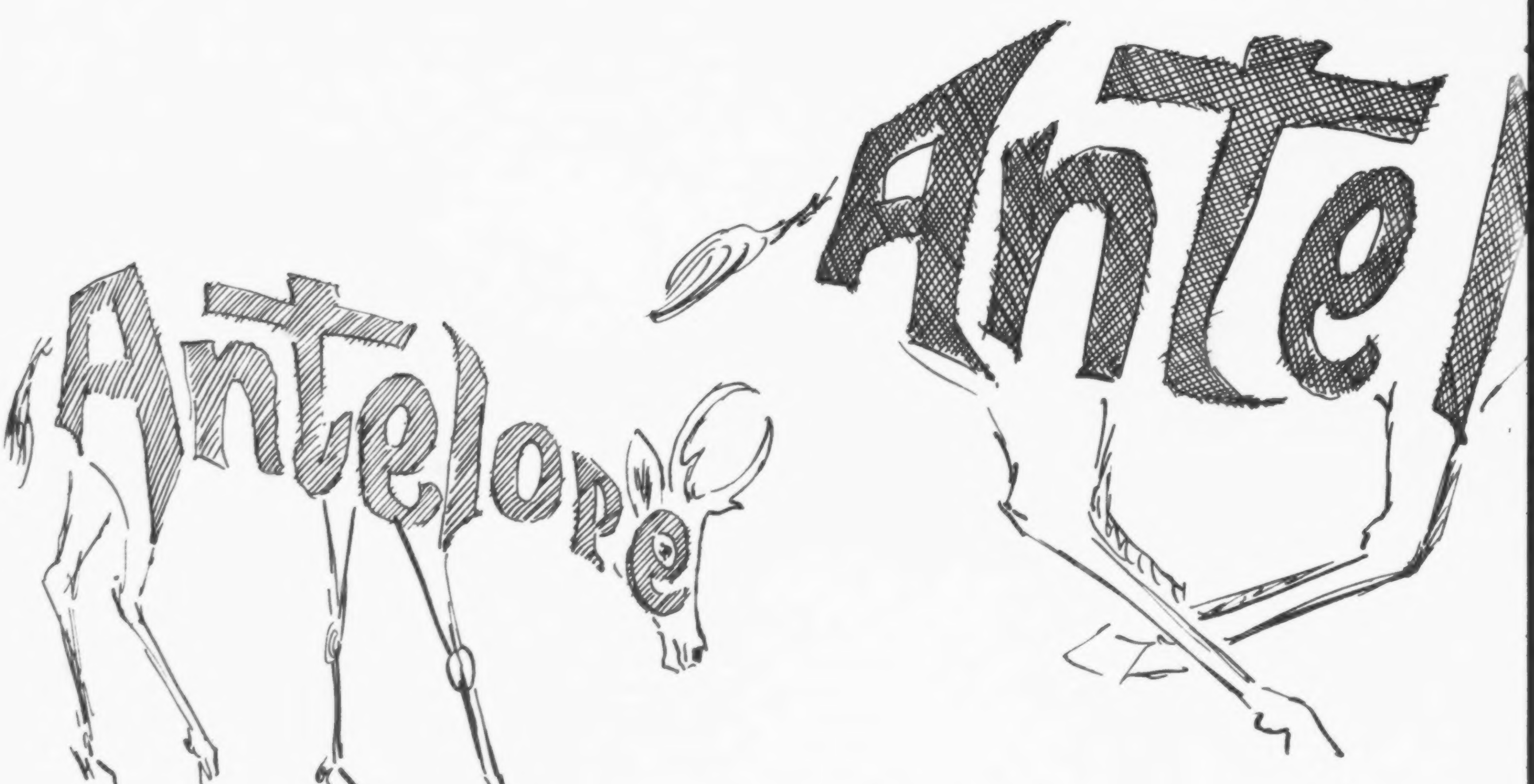

Antelope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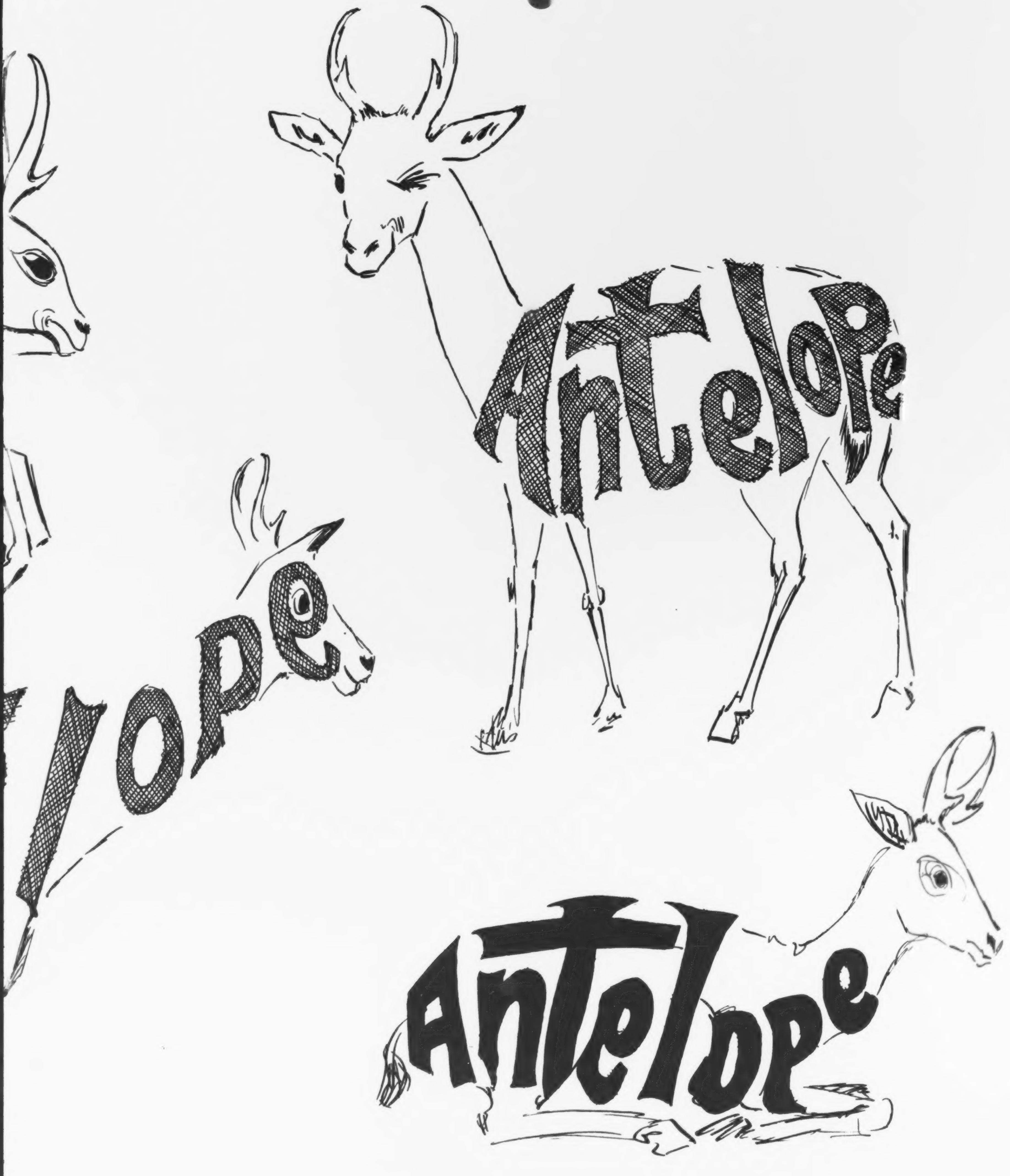
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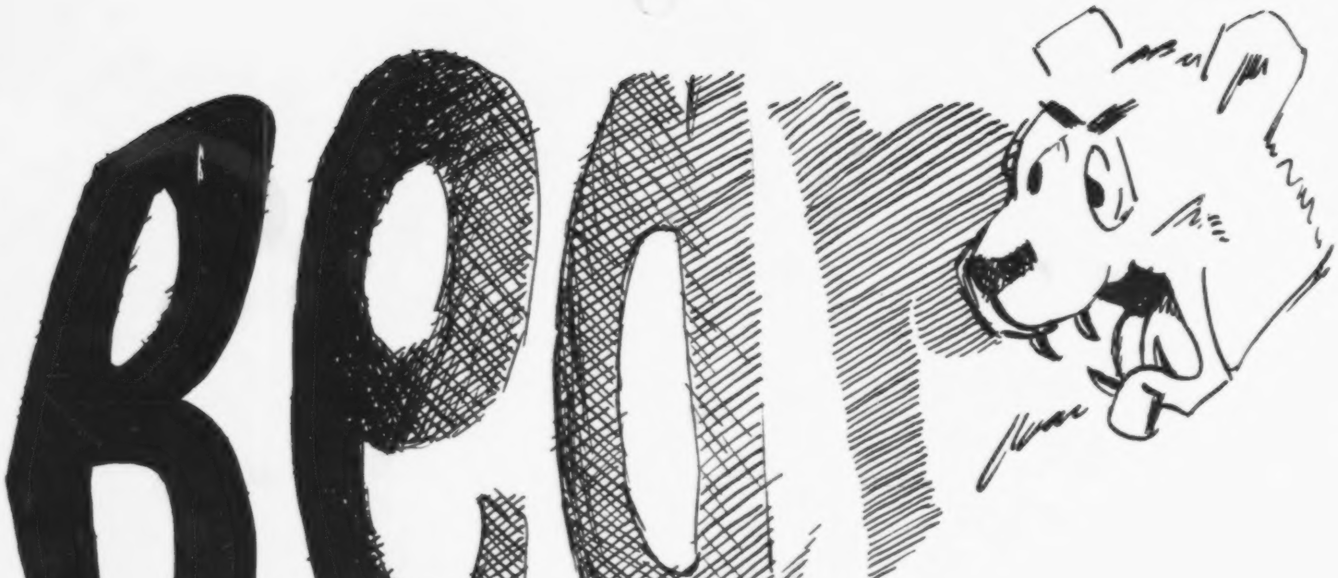
Antelope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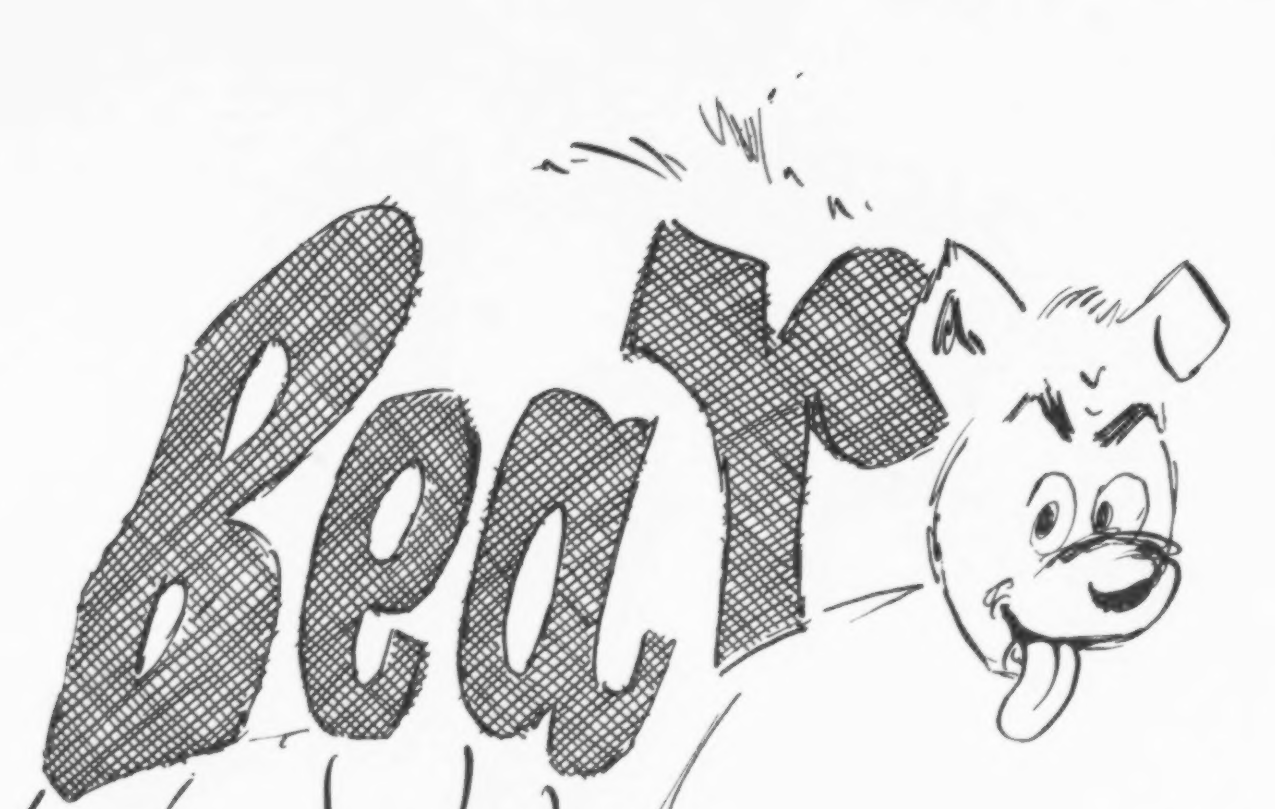
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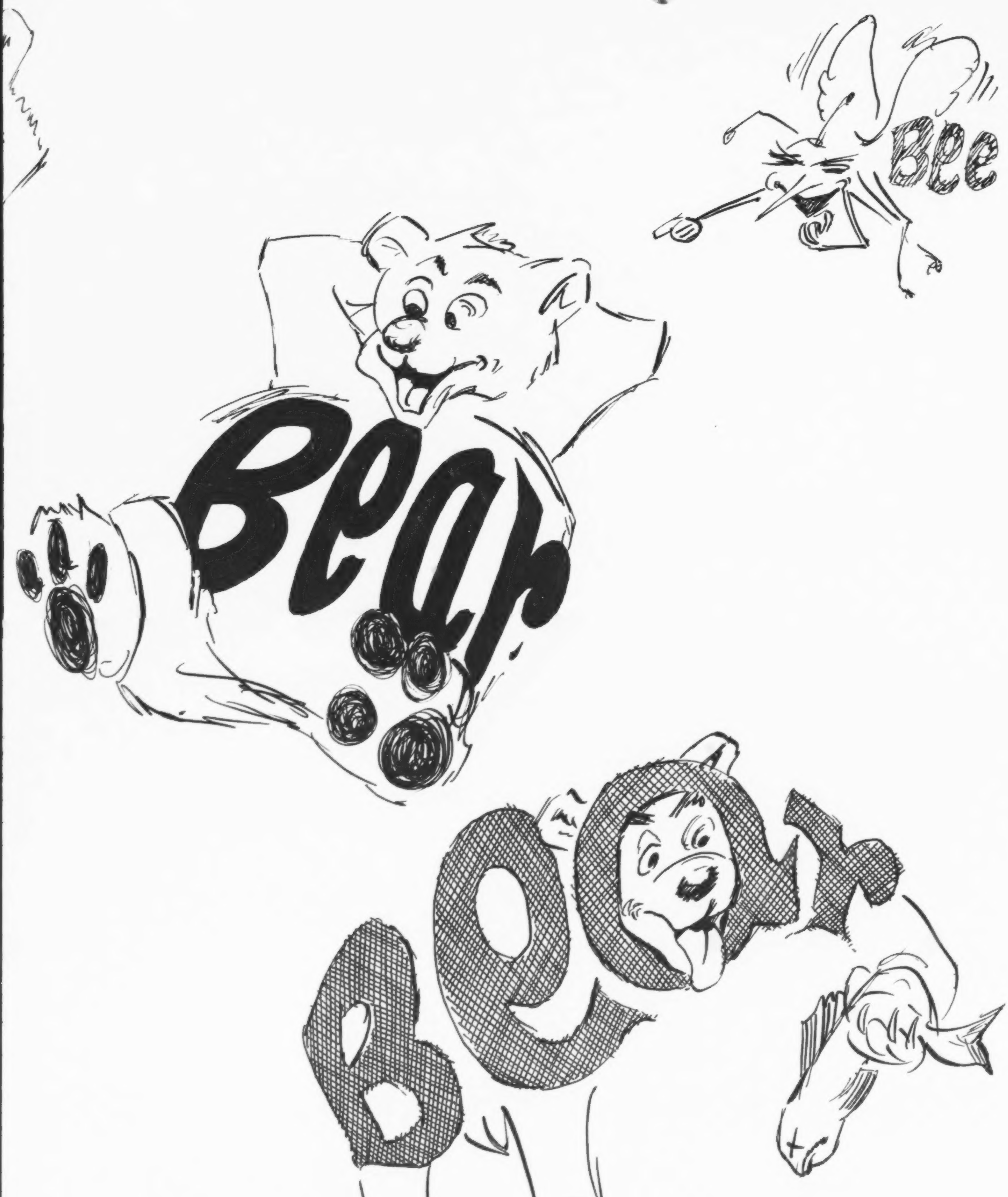
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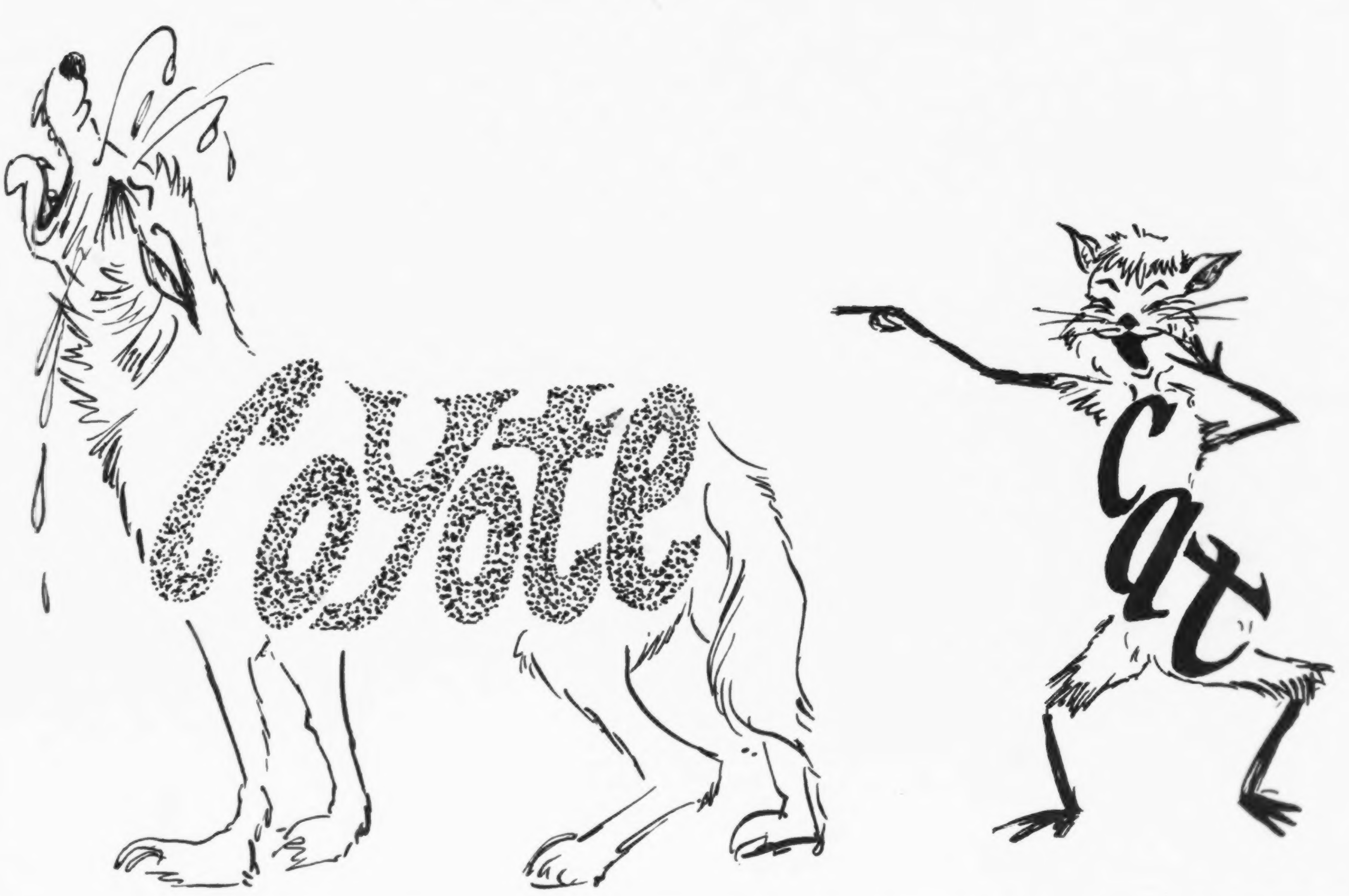
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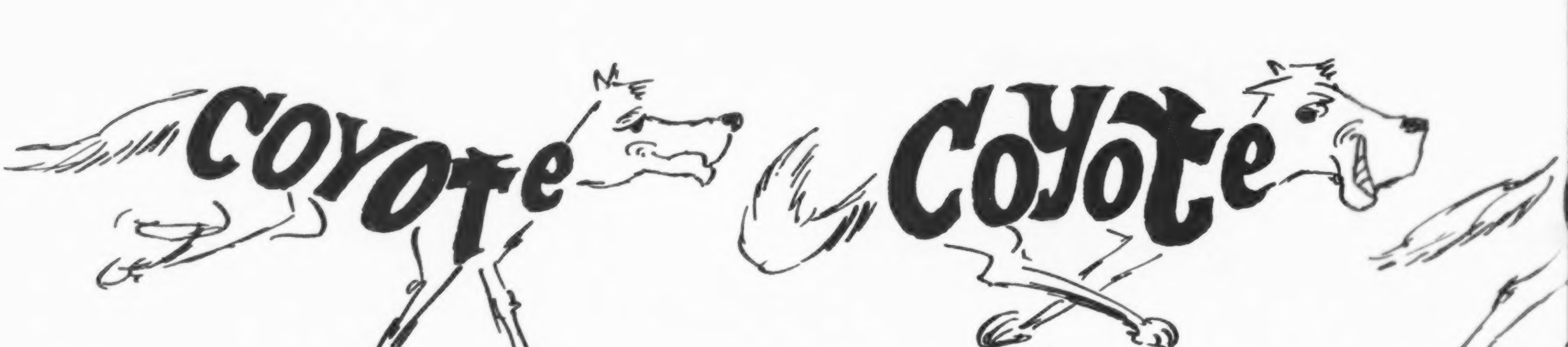
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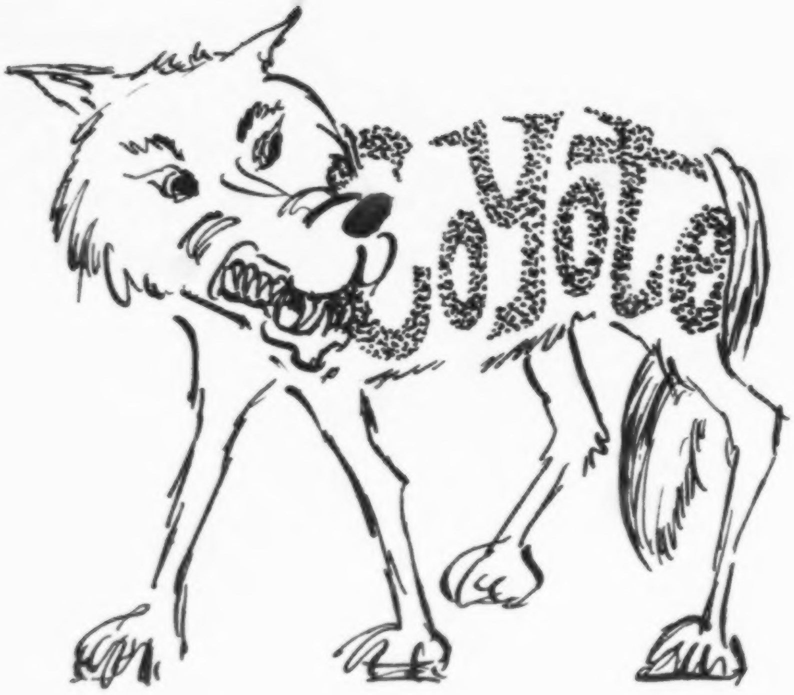
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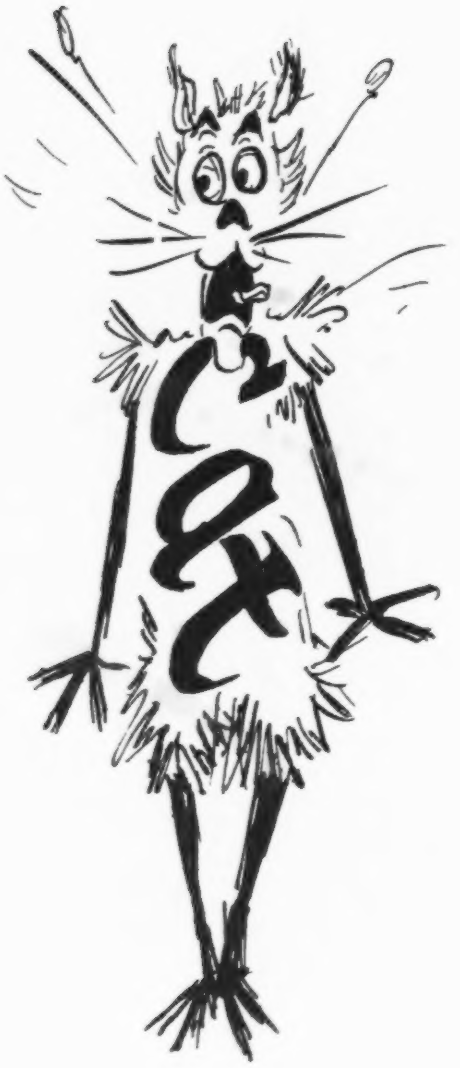
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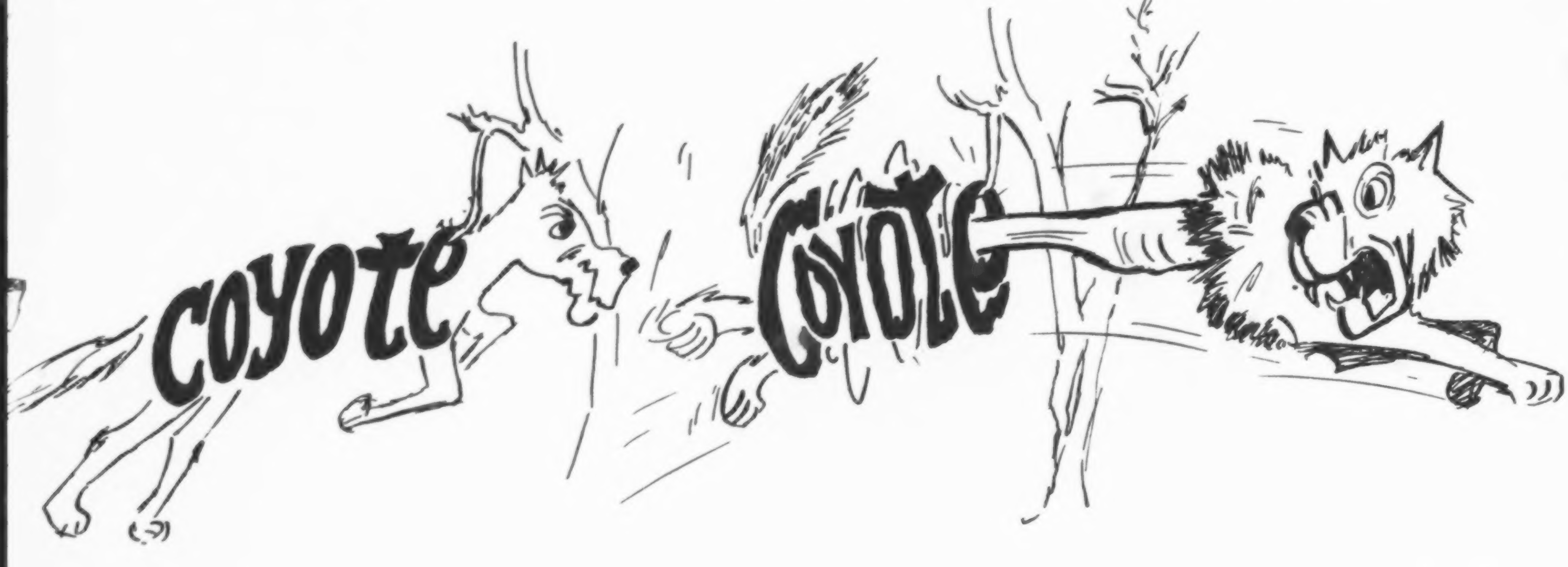
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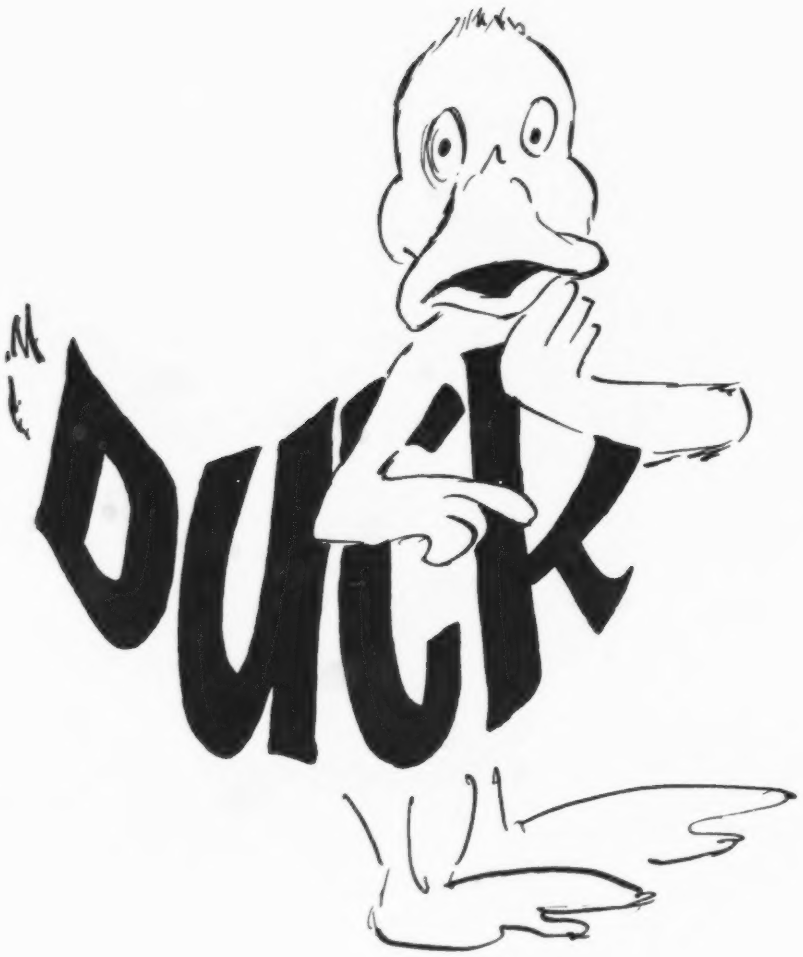
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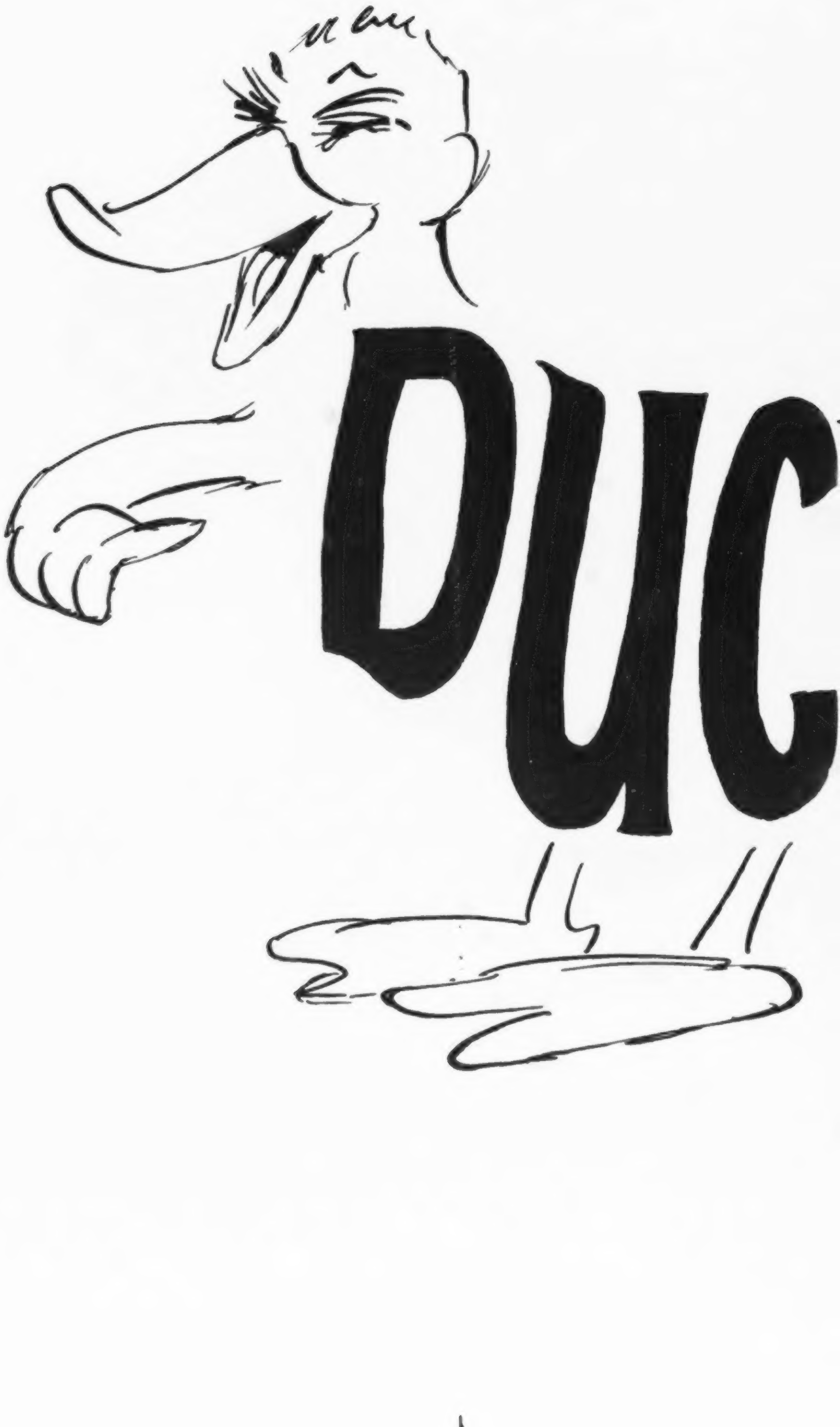
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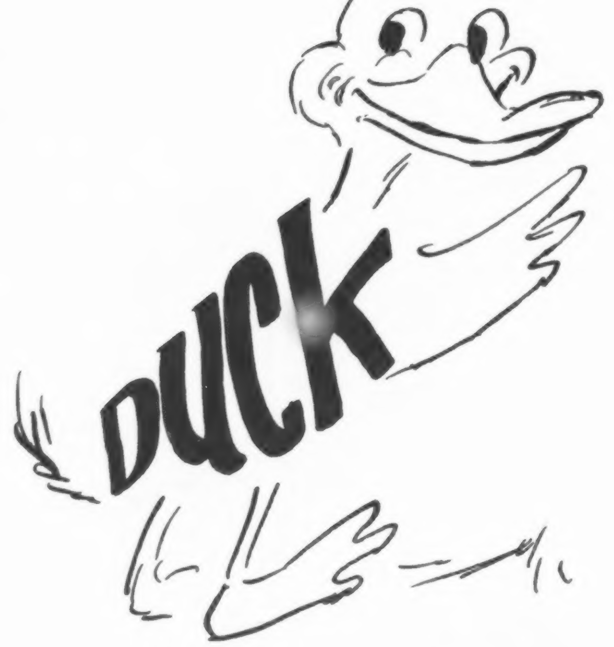
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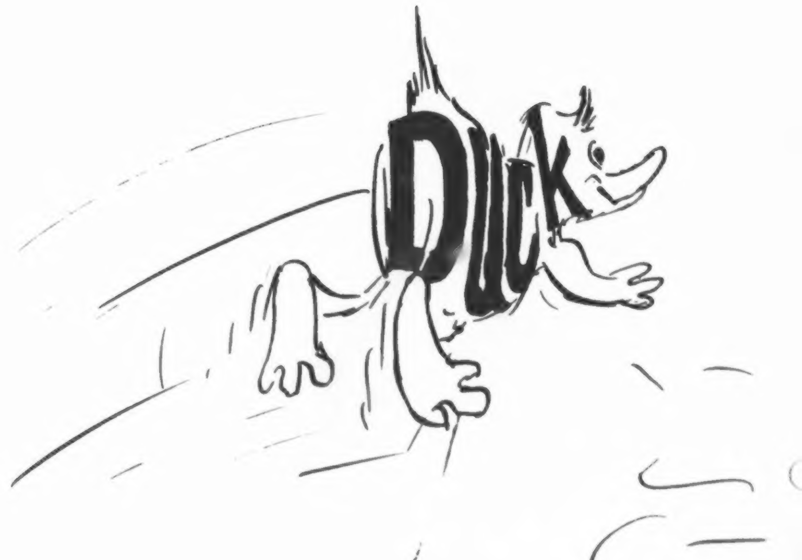
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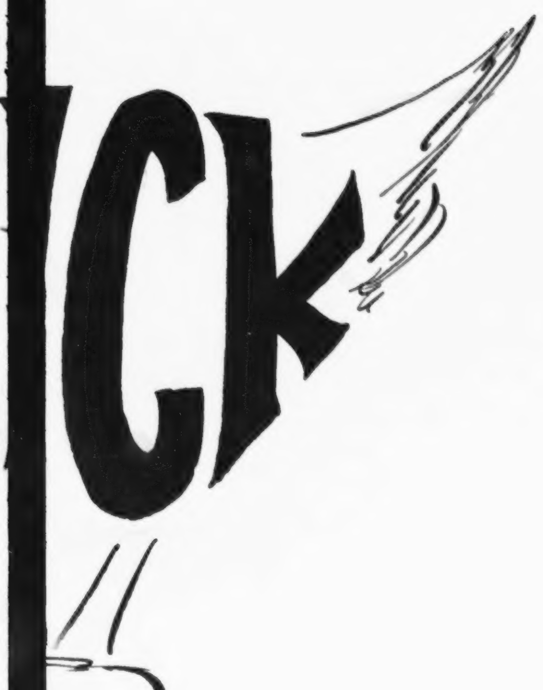
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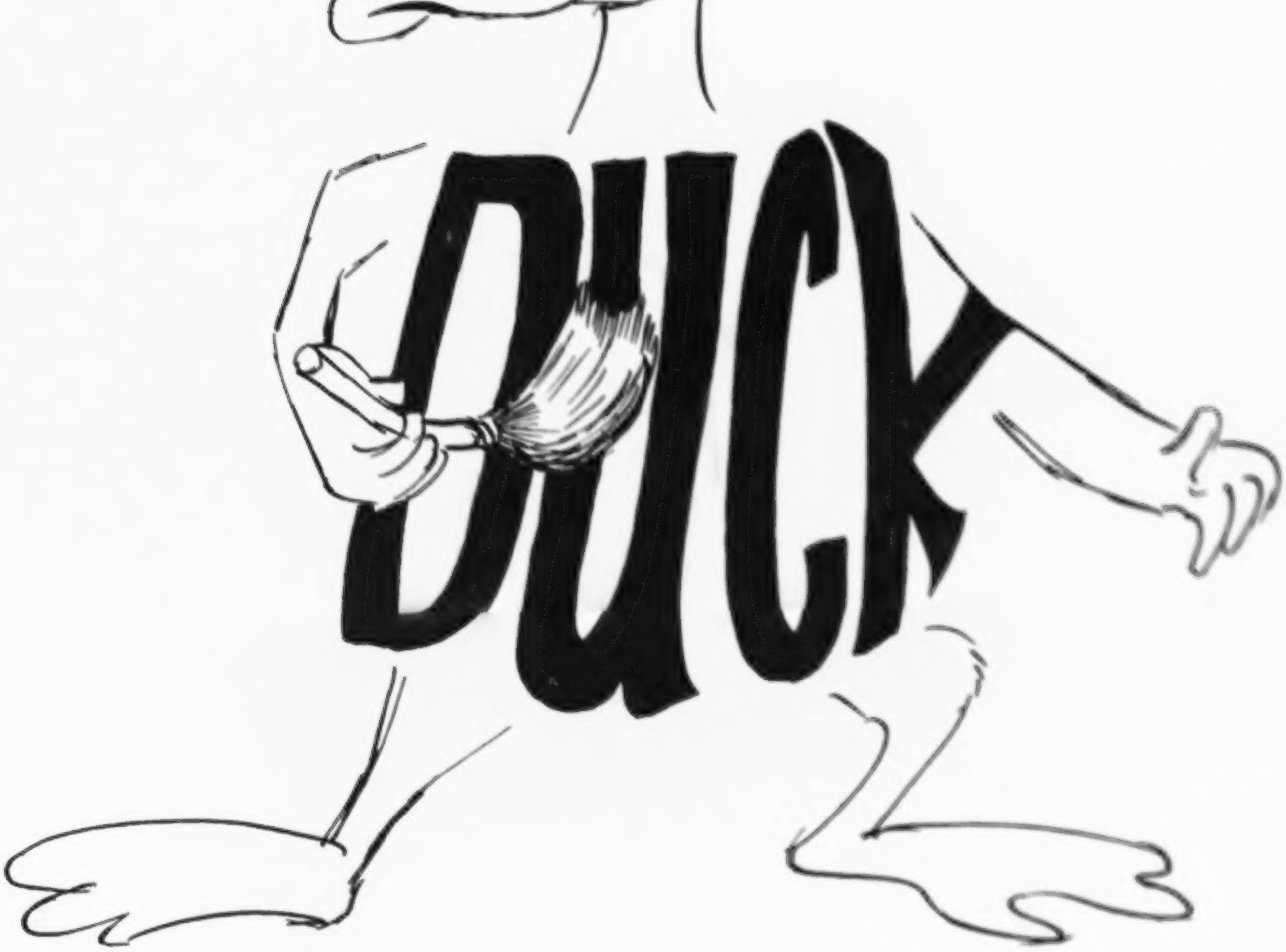
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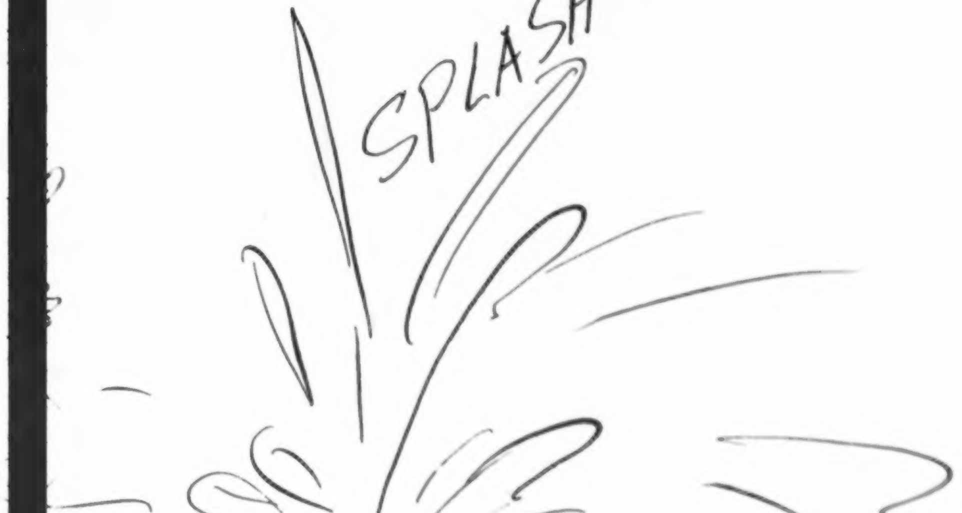
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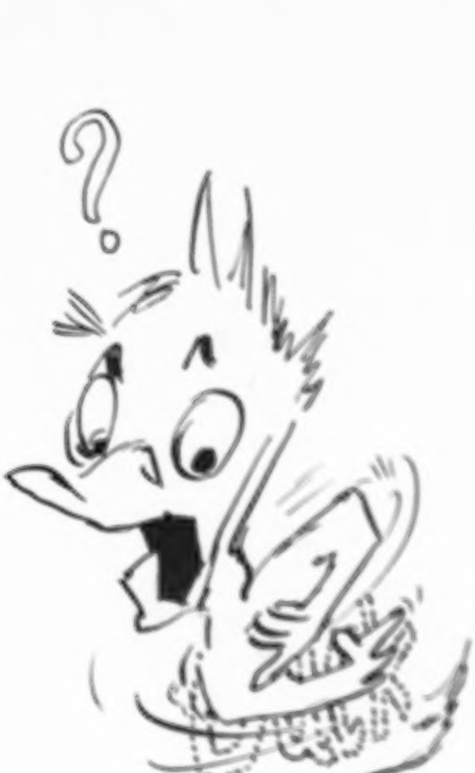
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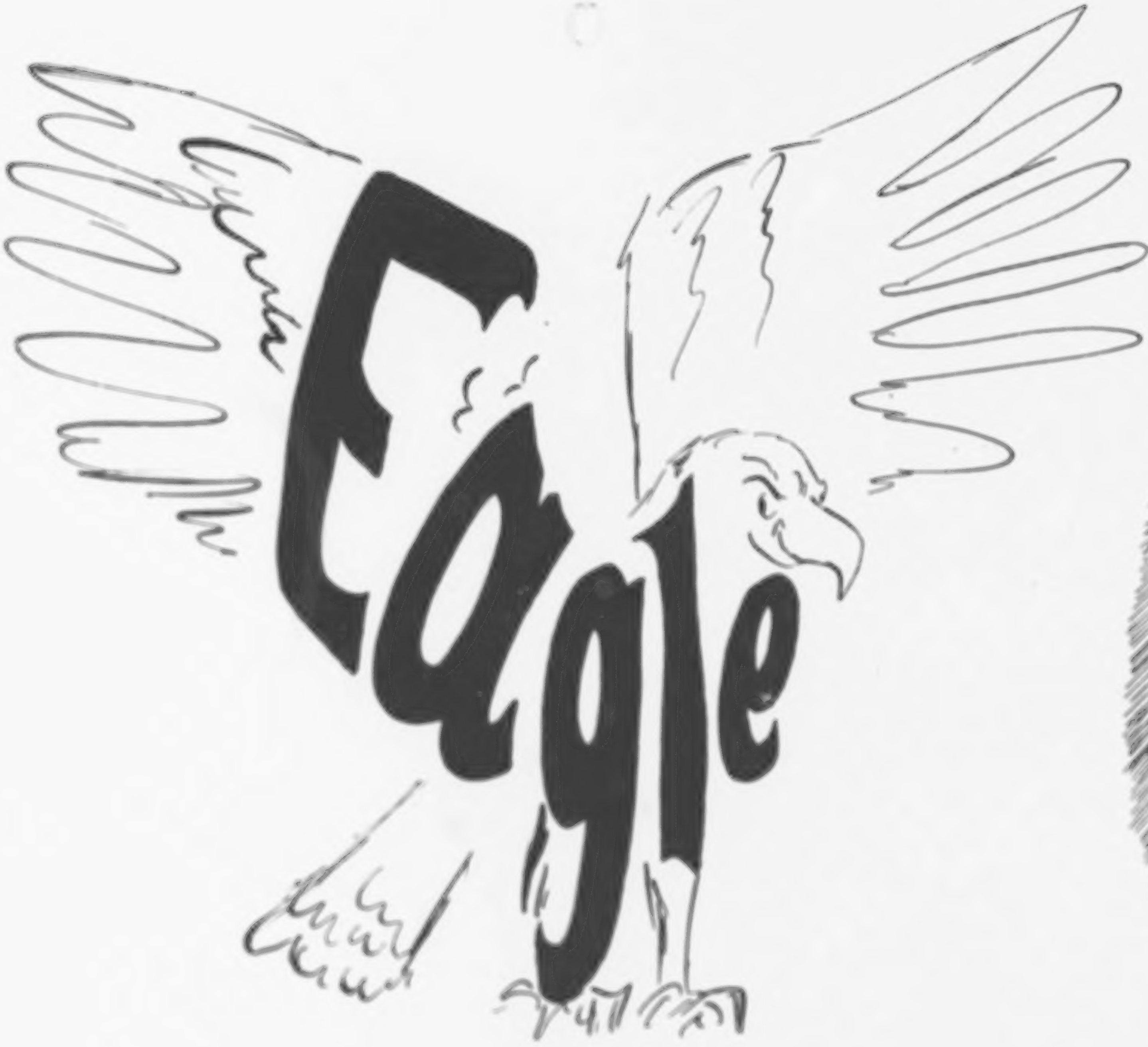
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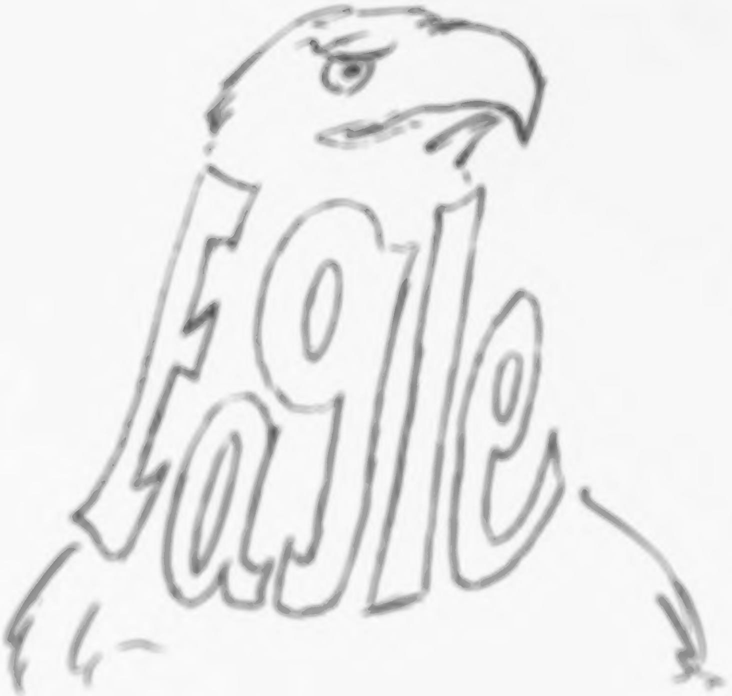
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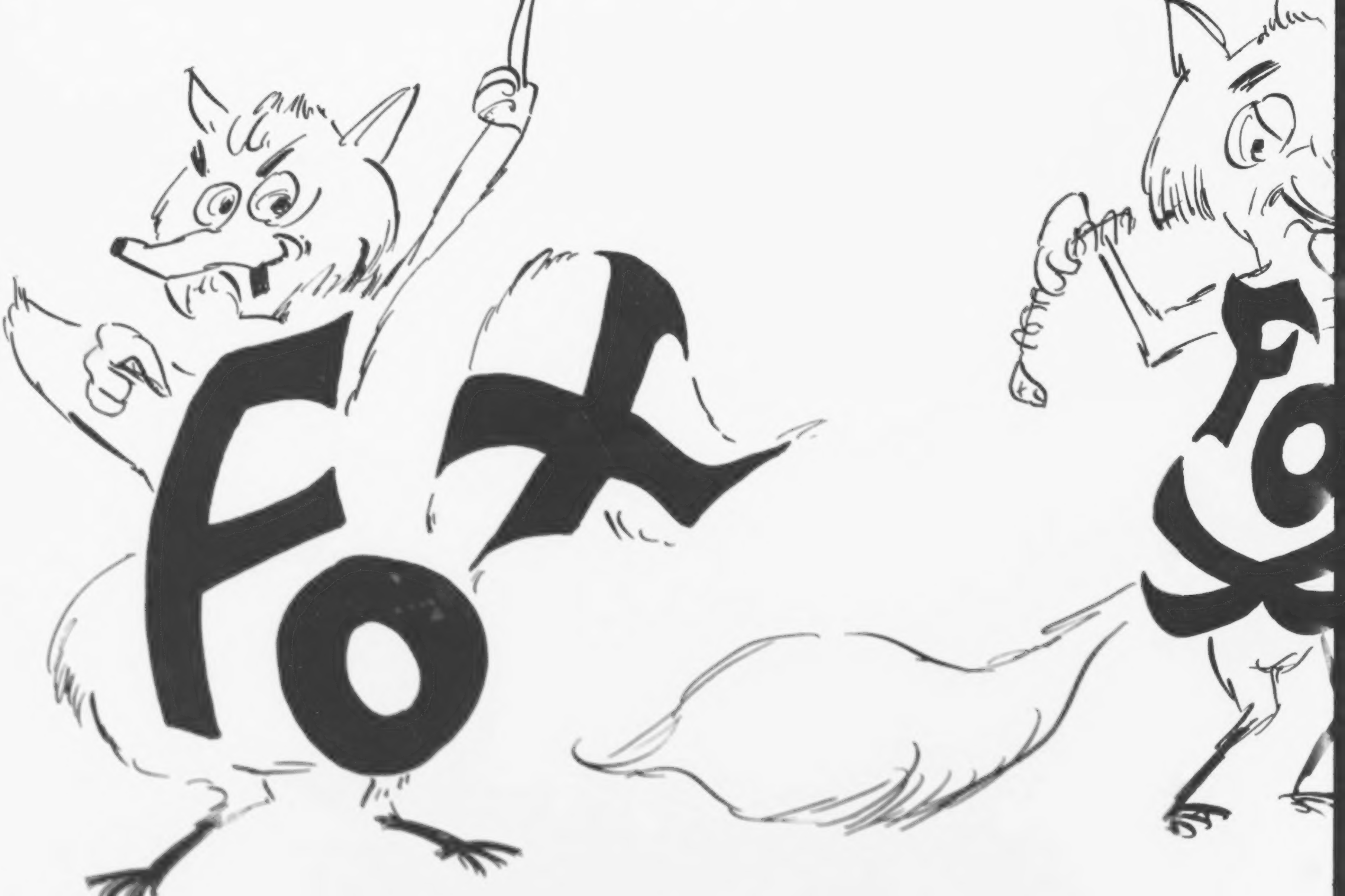
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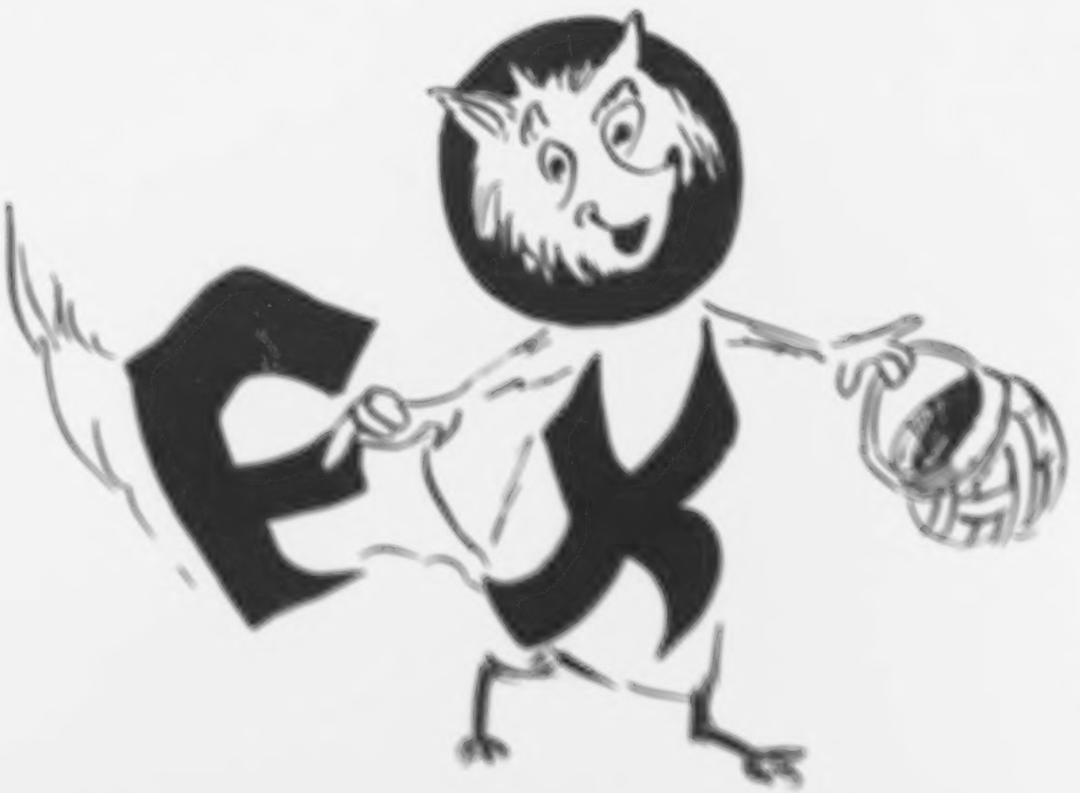
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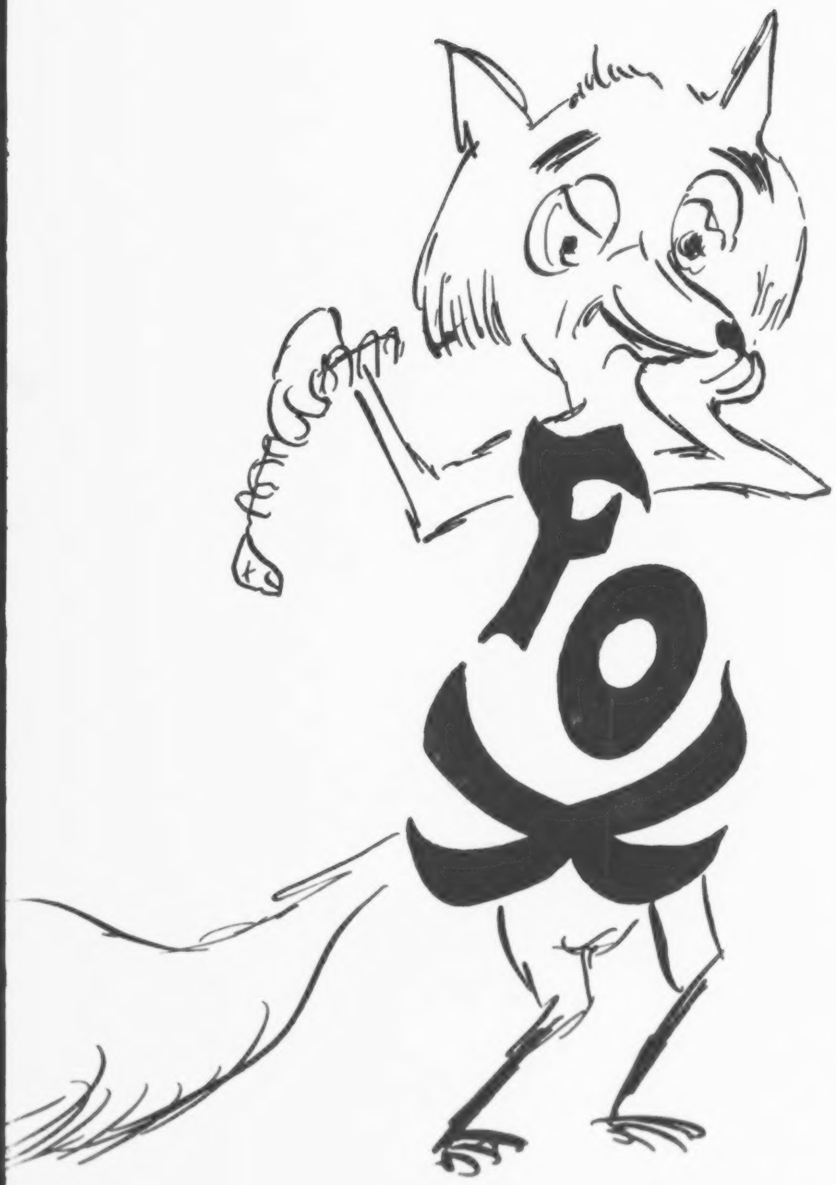
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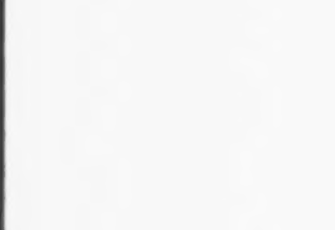

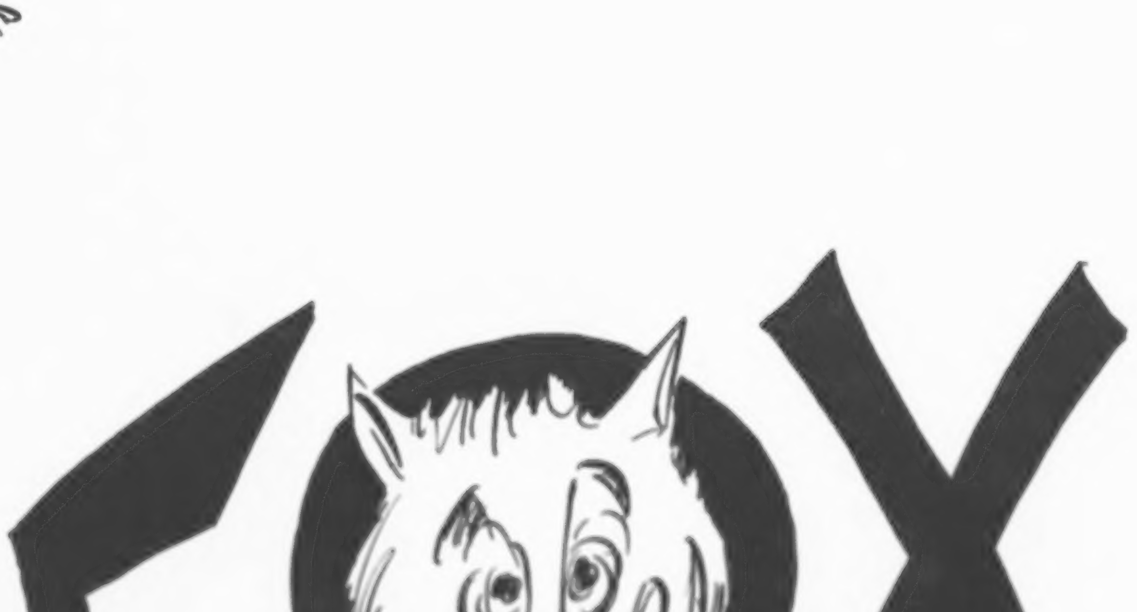
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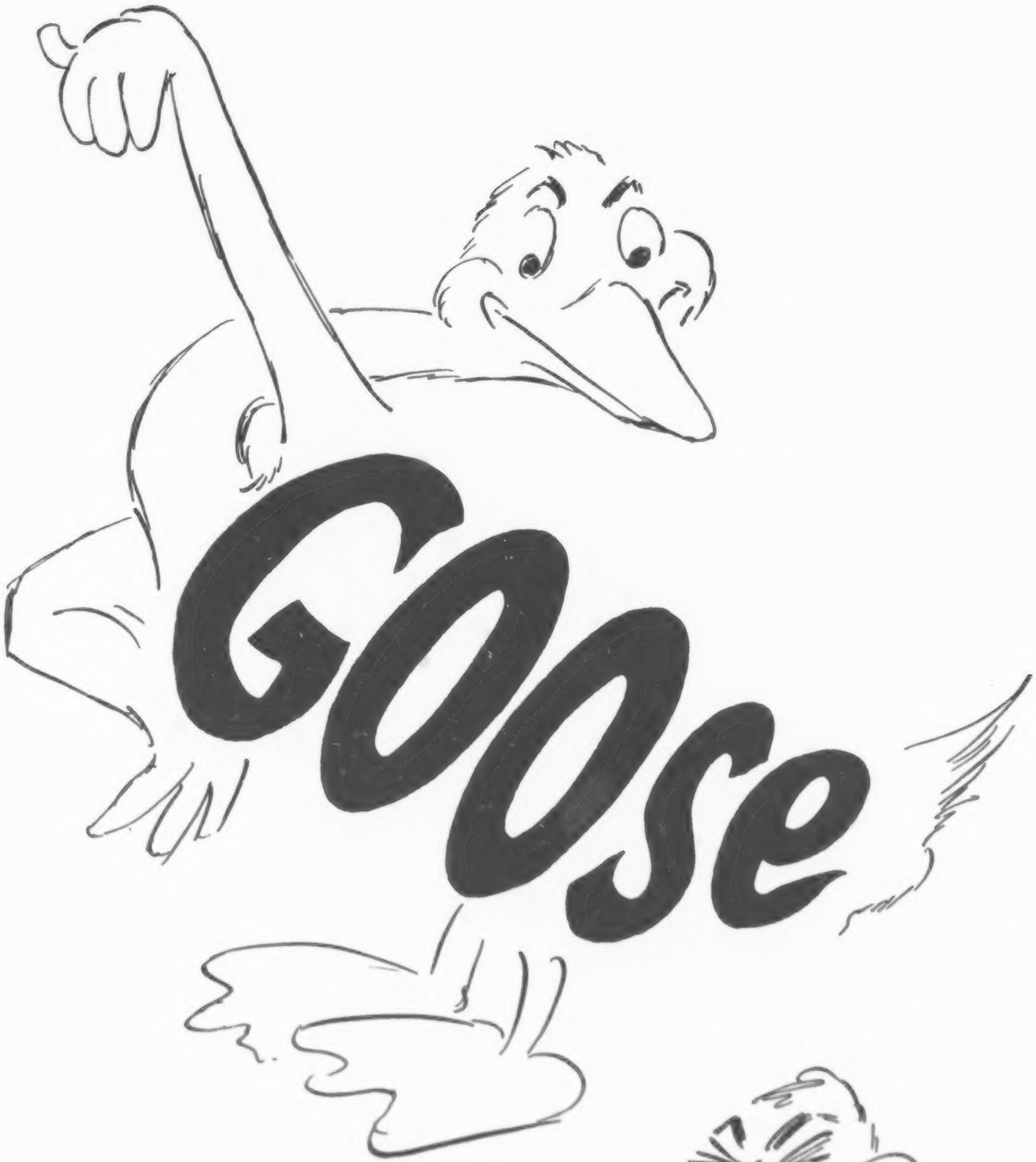
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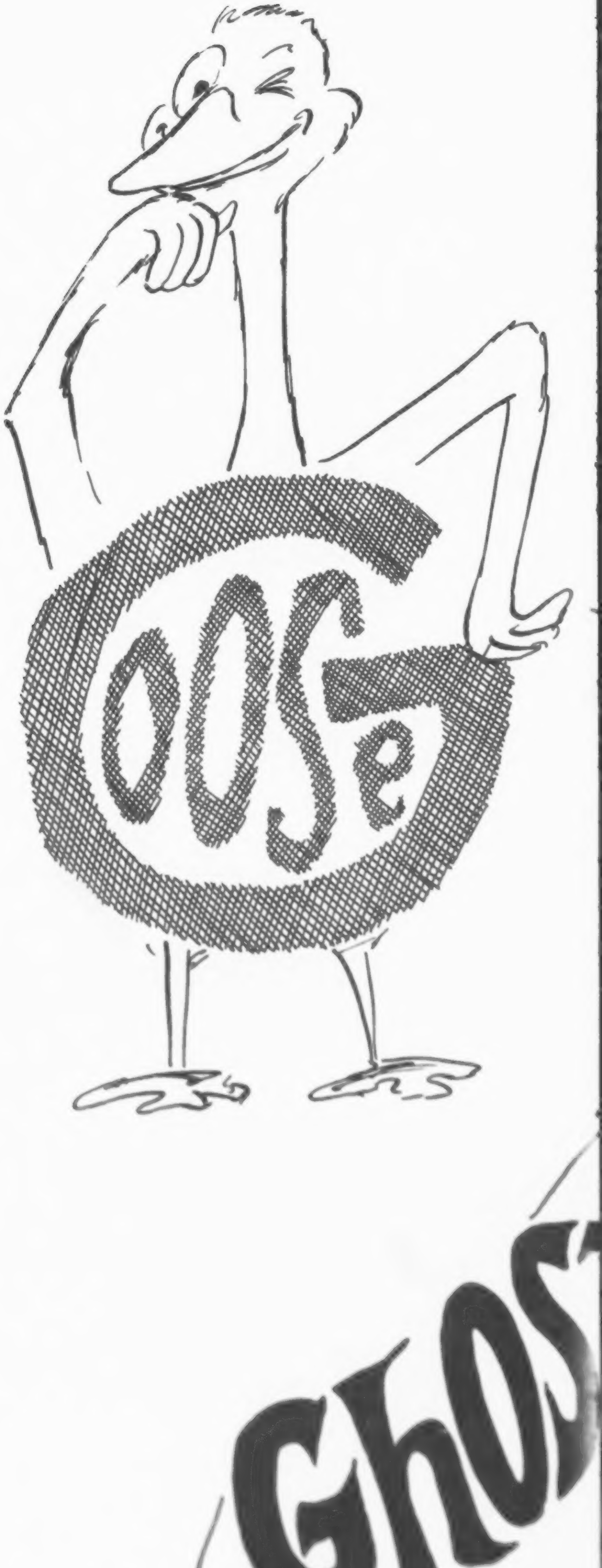
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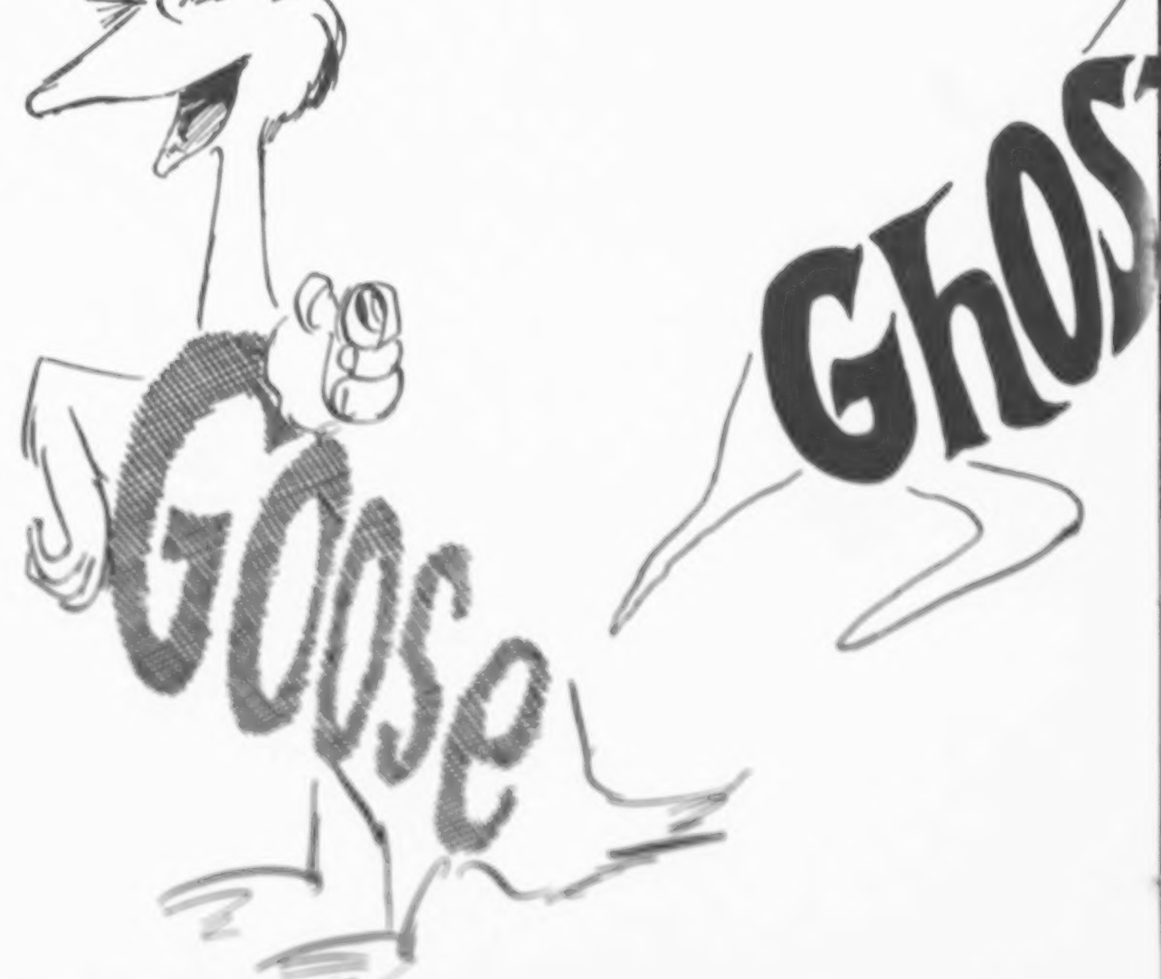
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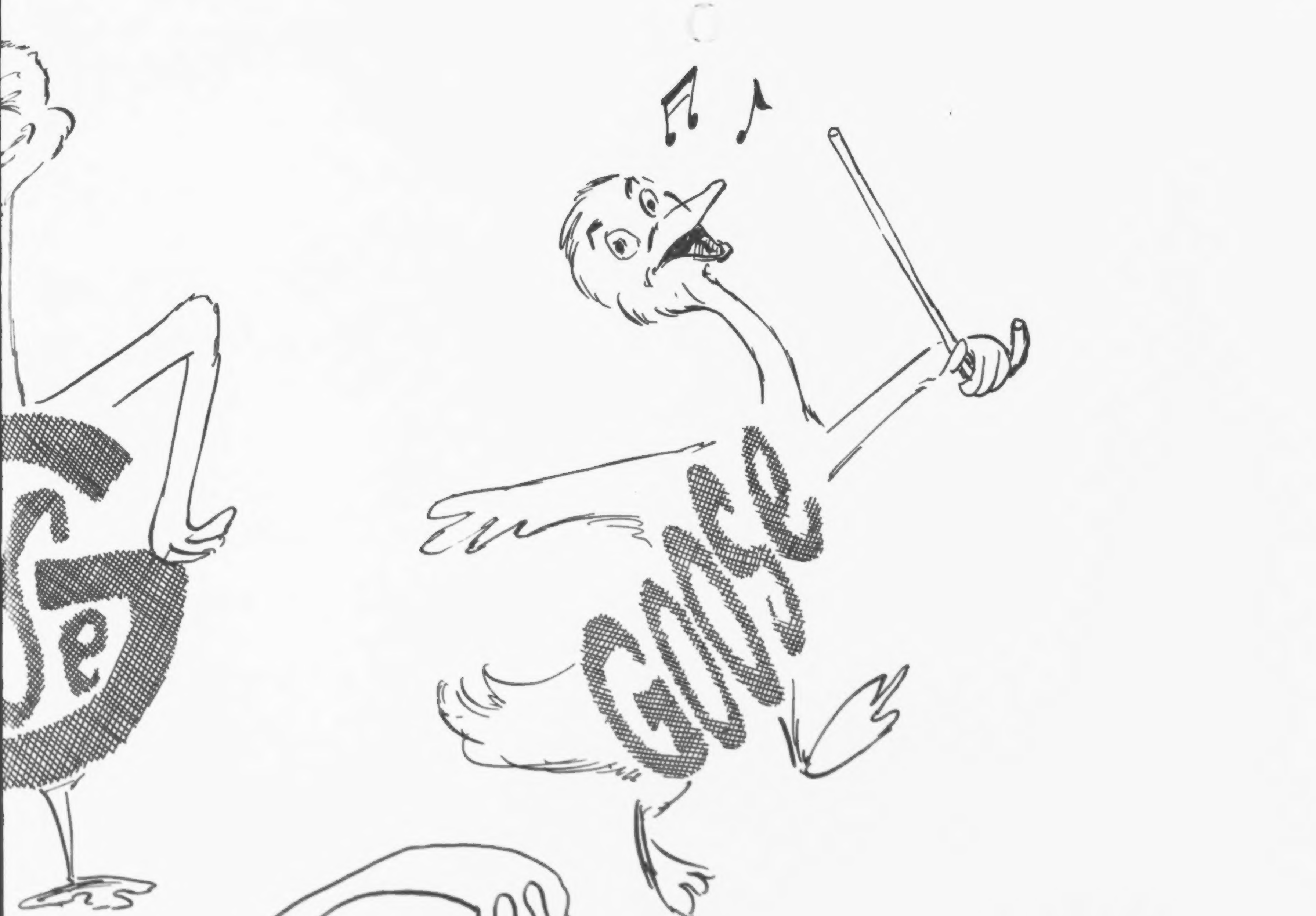
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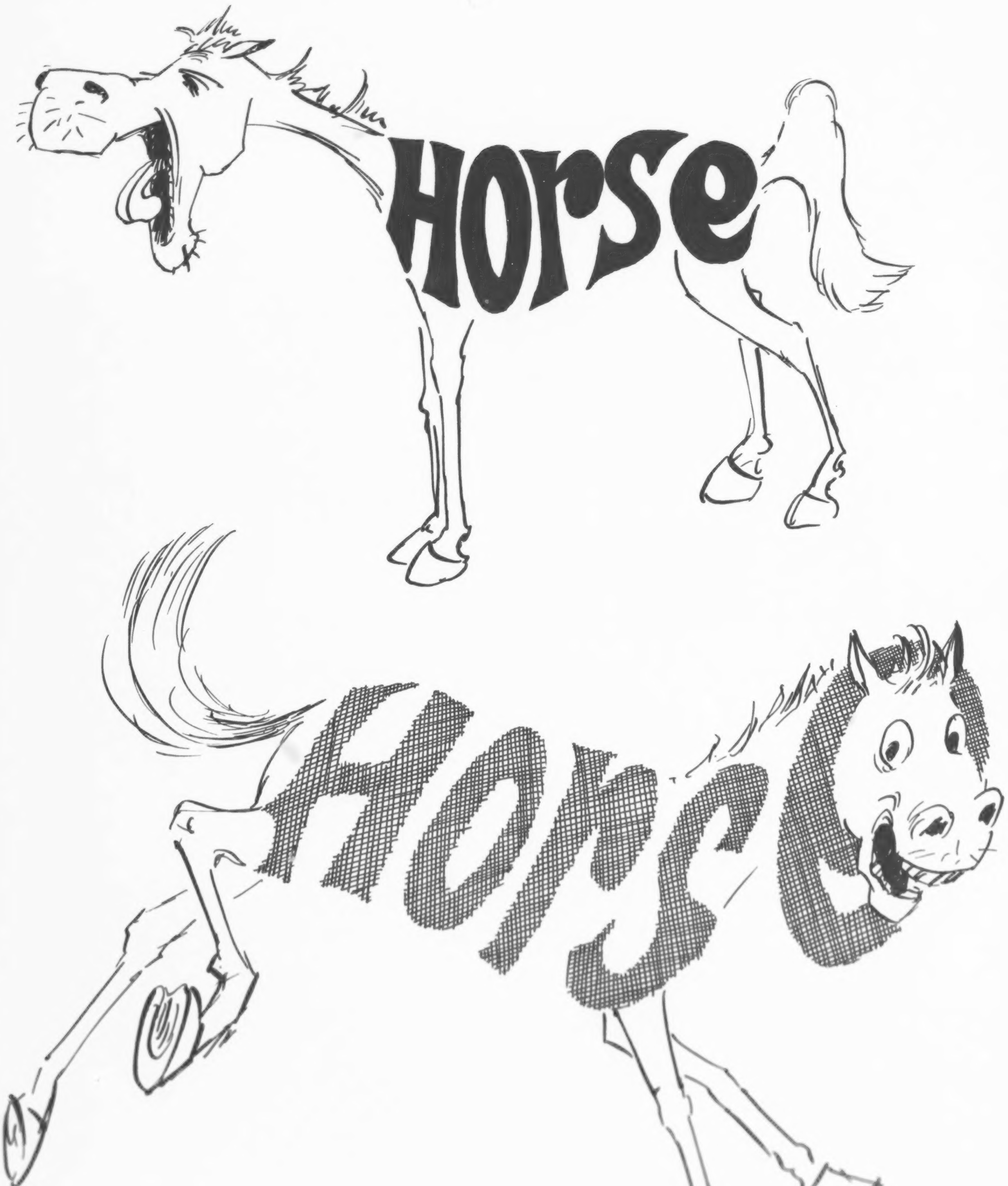
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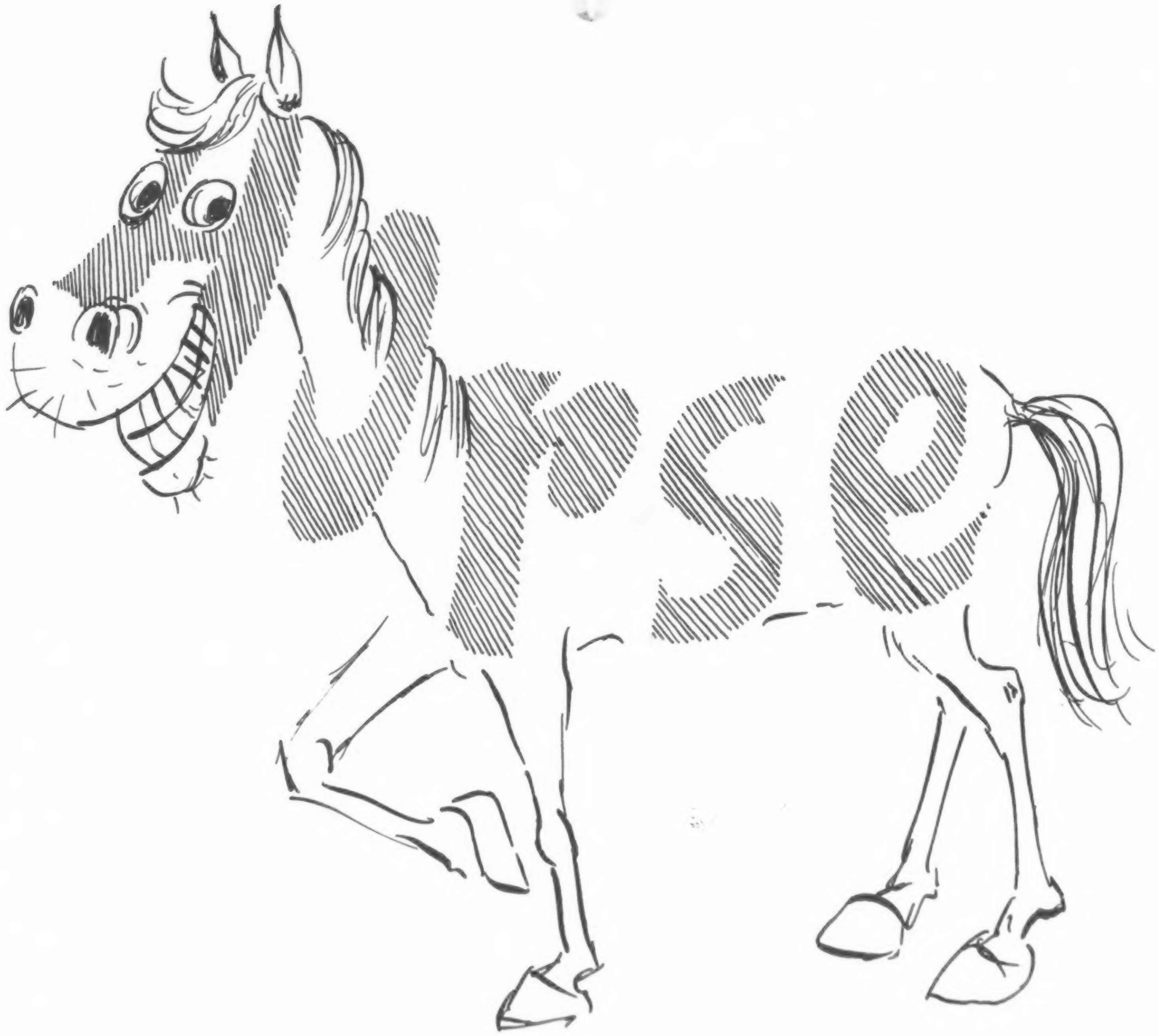
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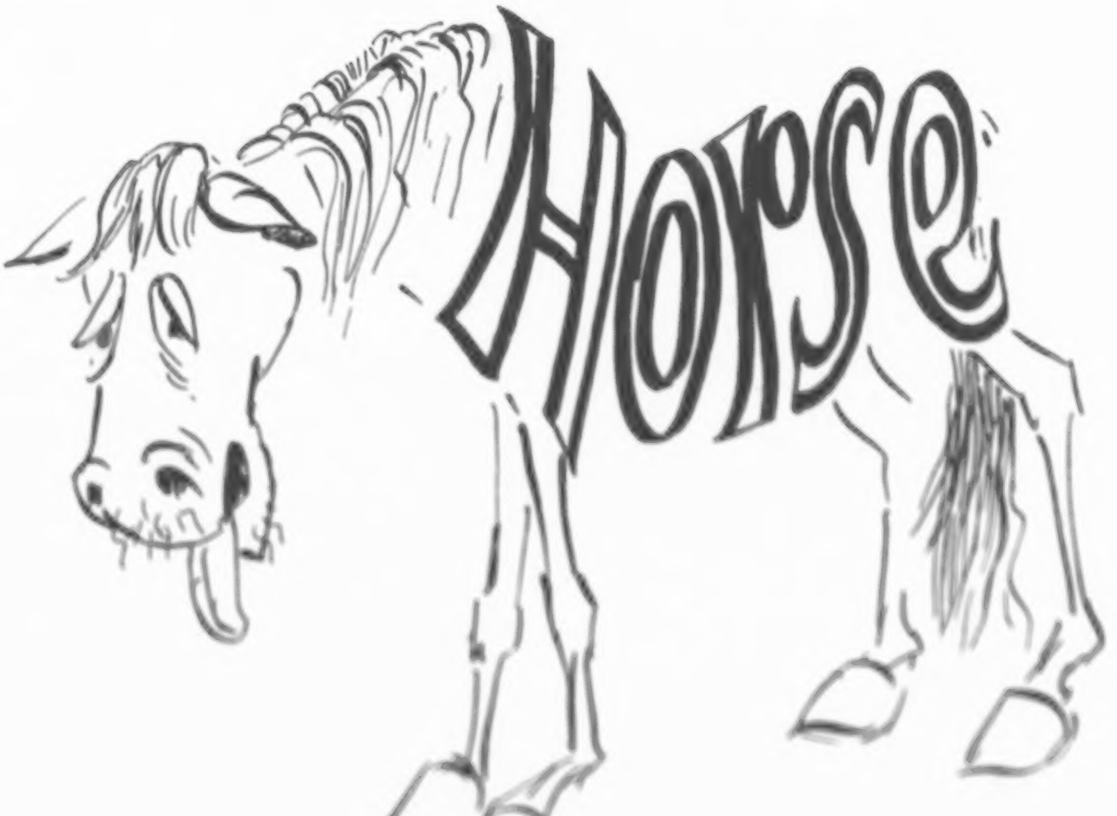
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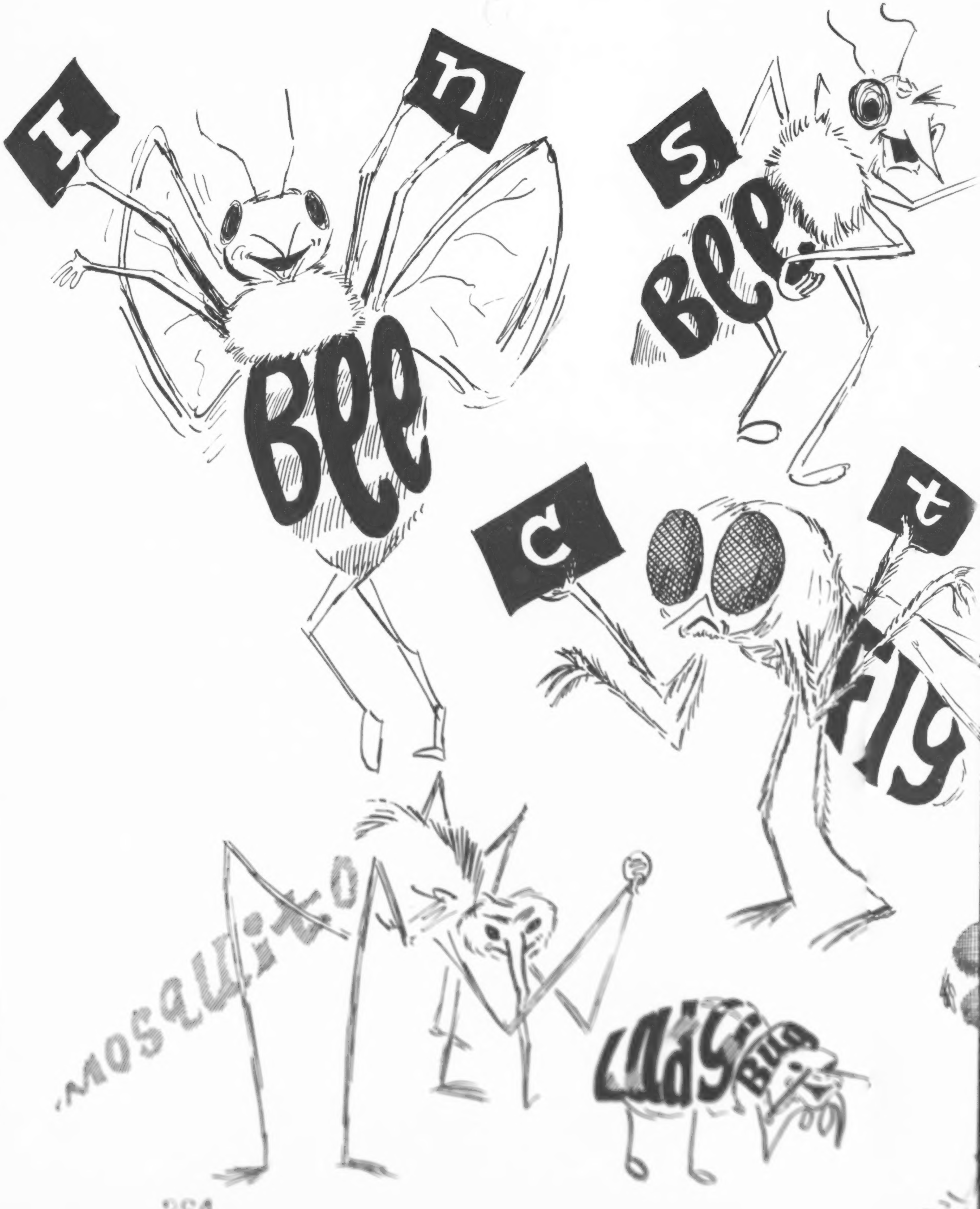
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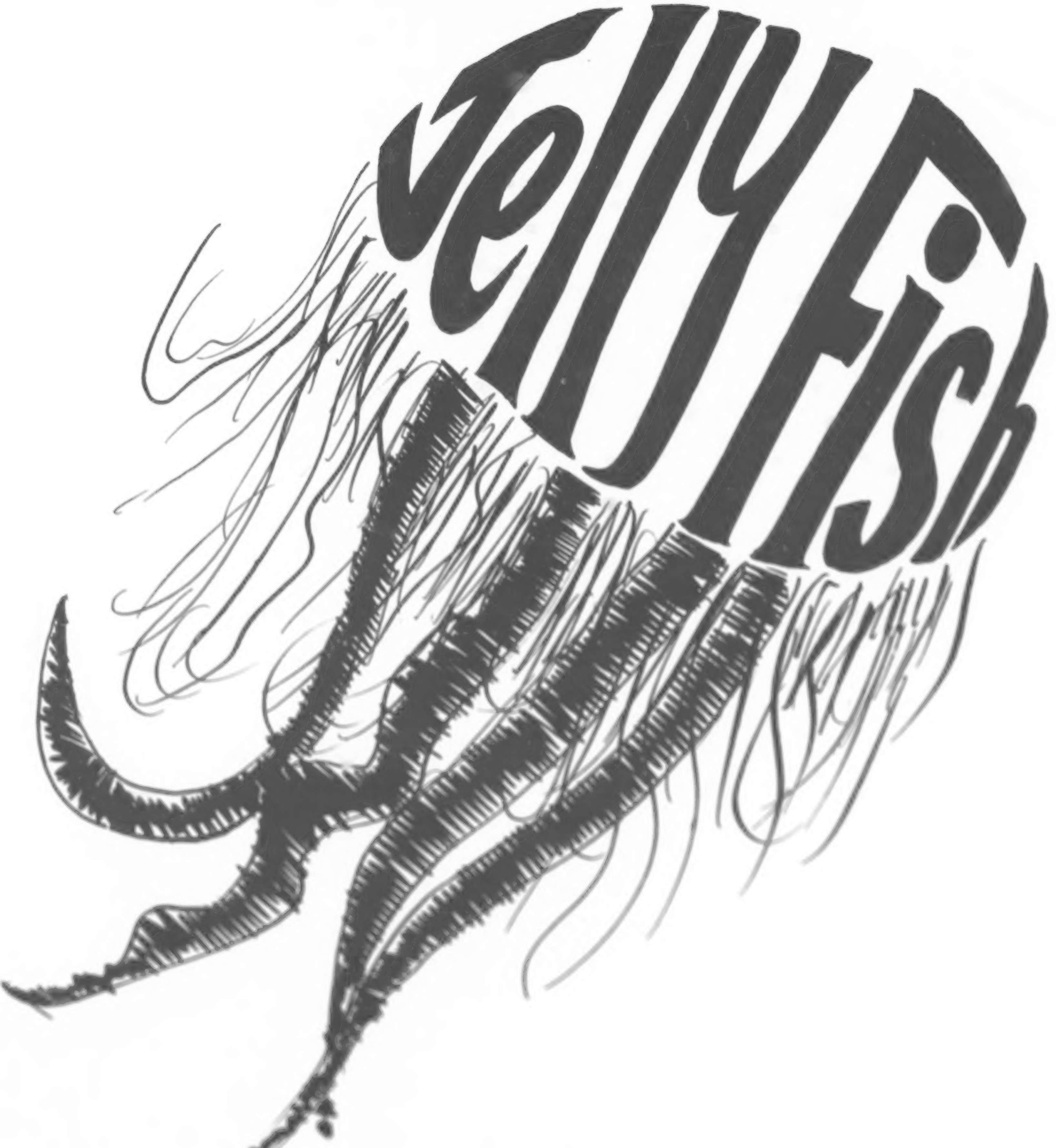

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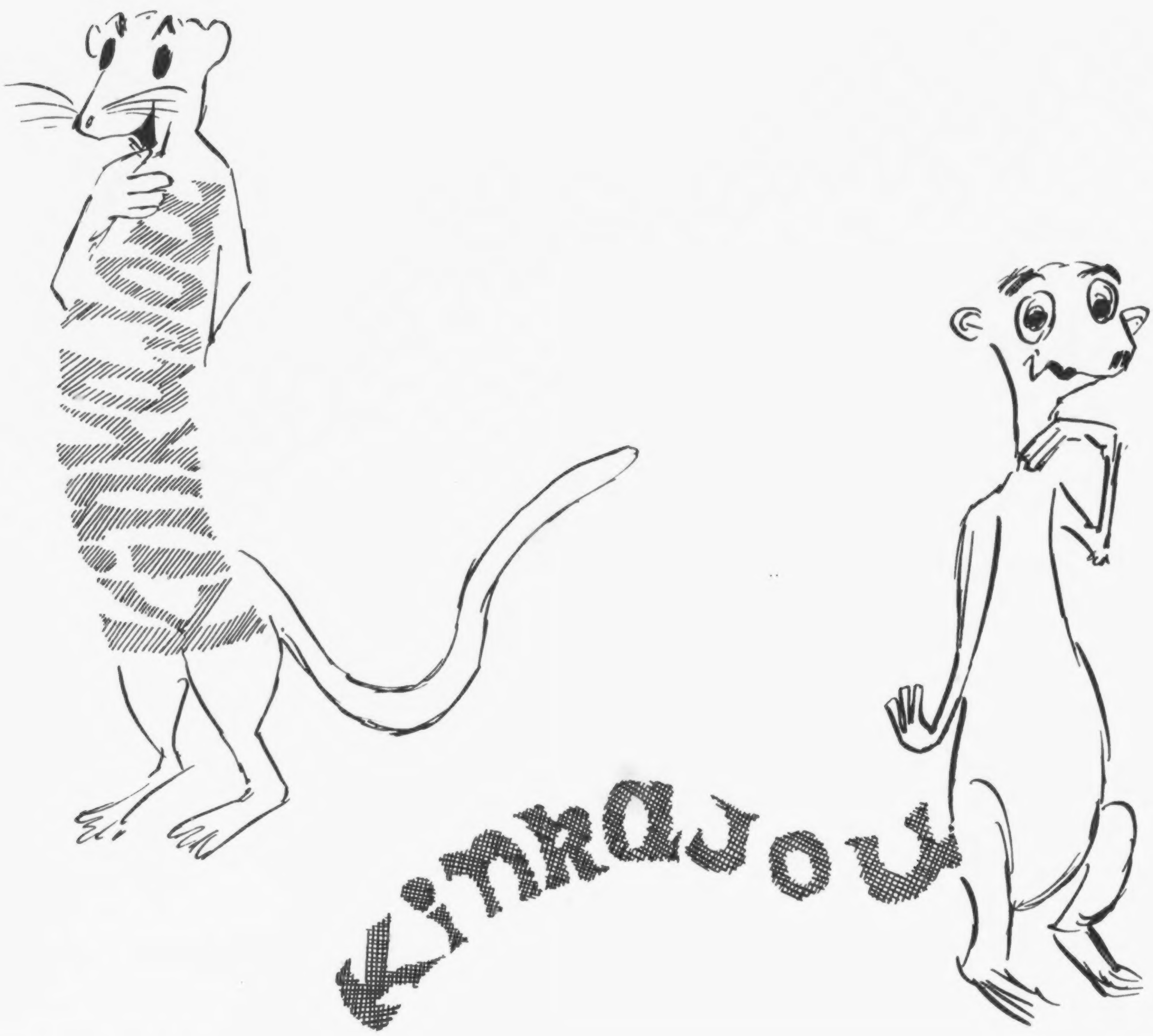
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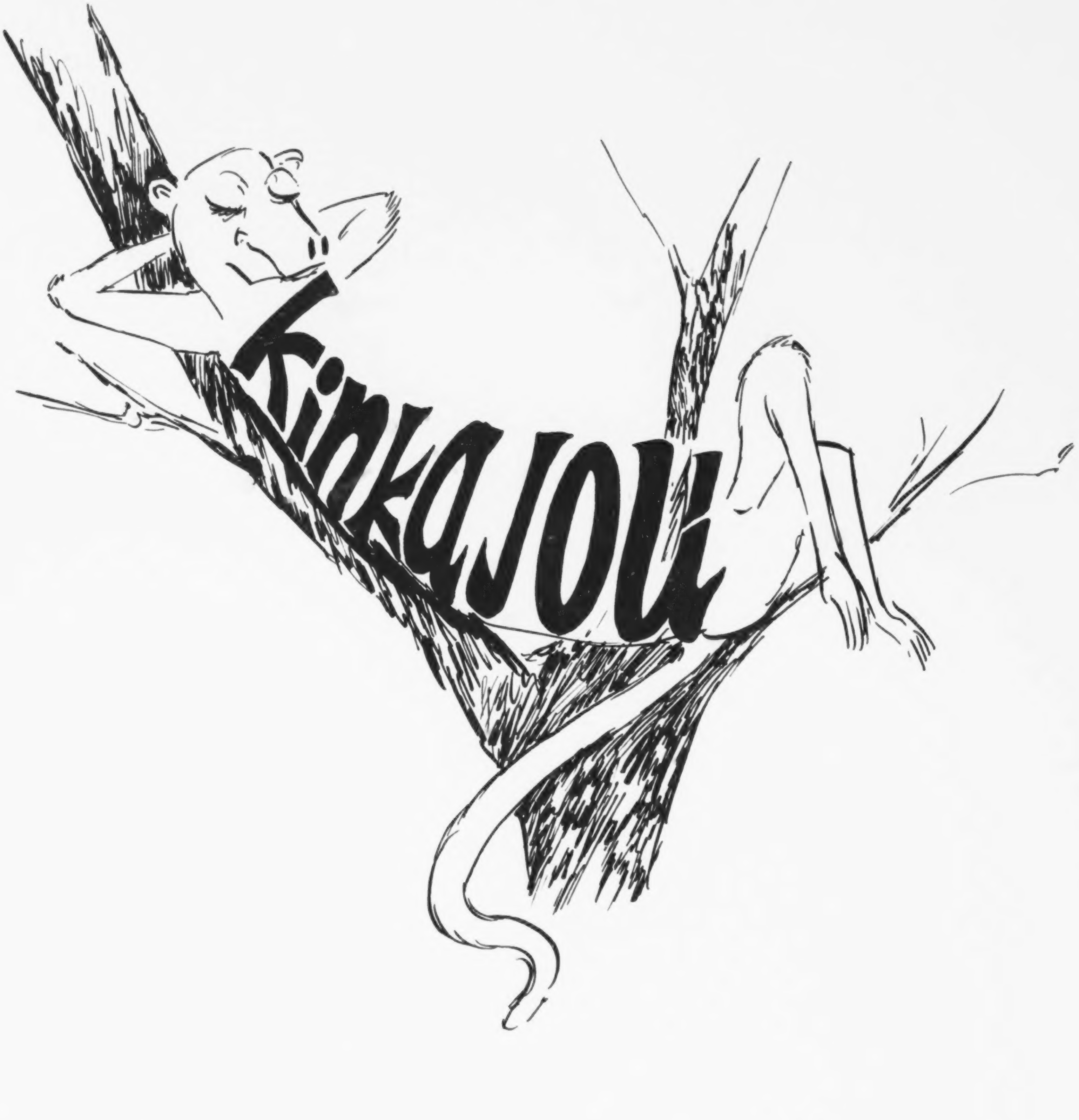

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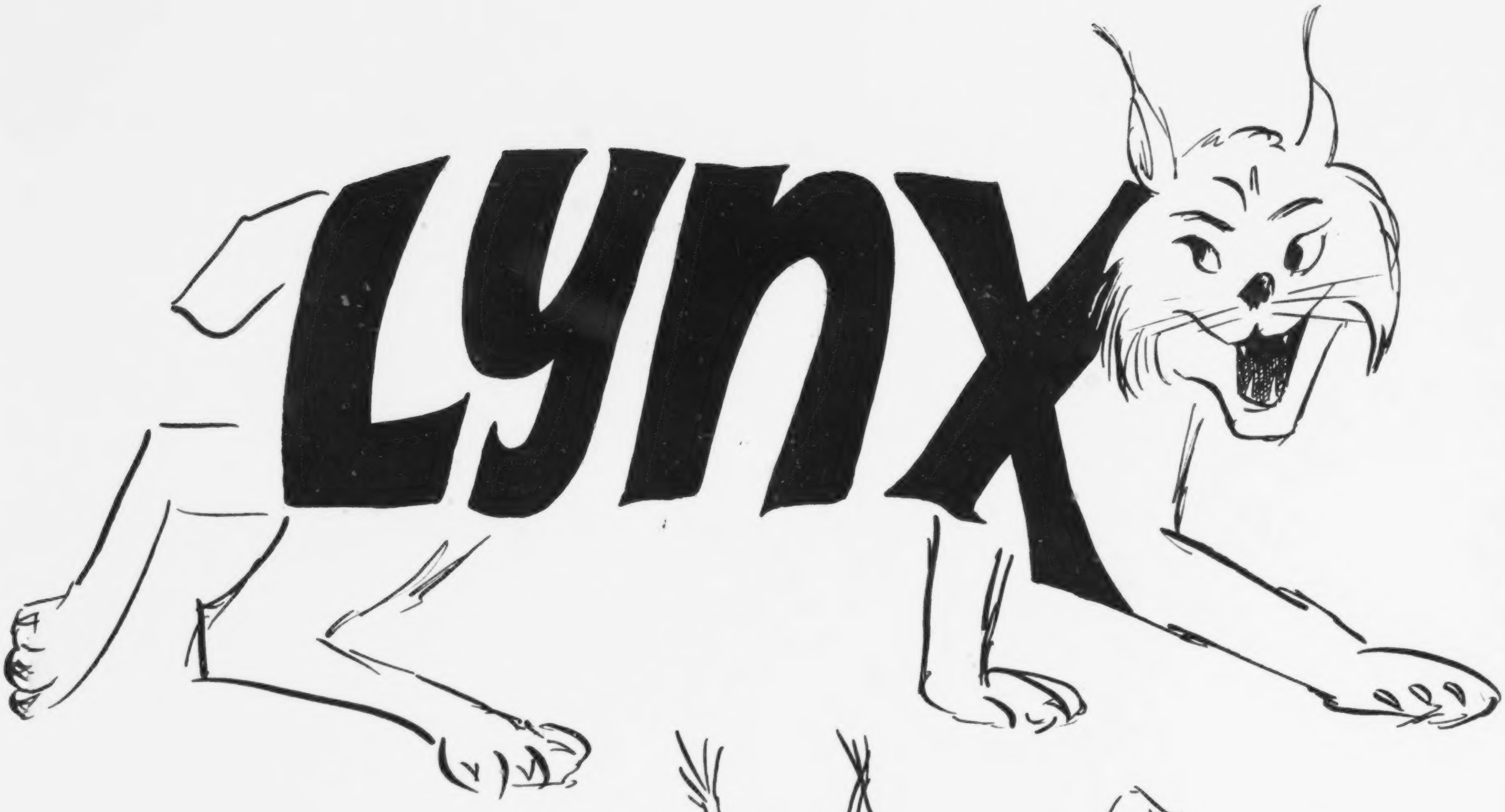
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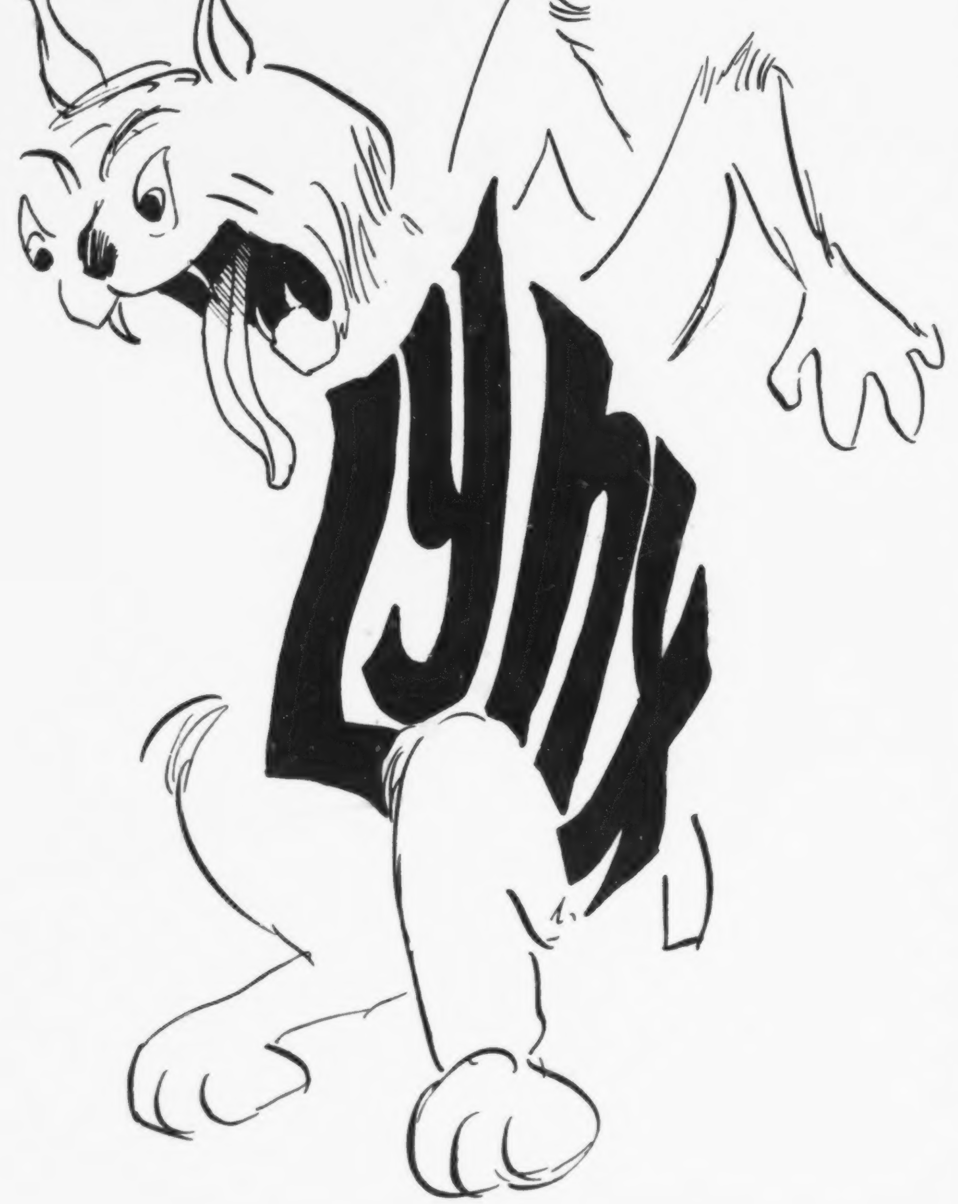
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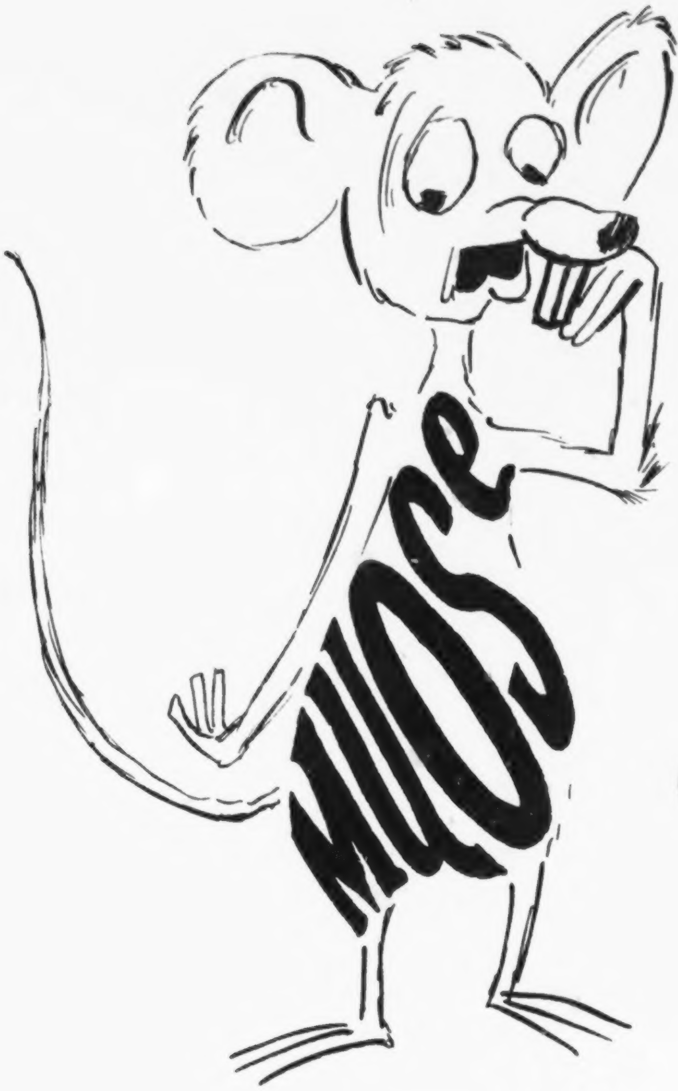
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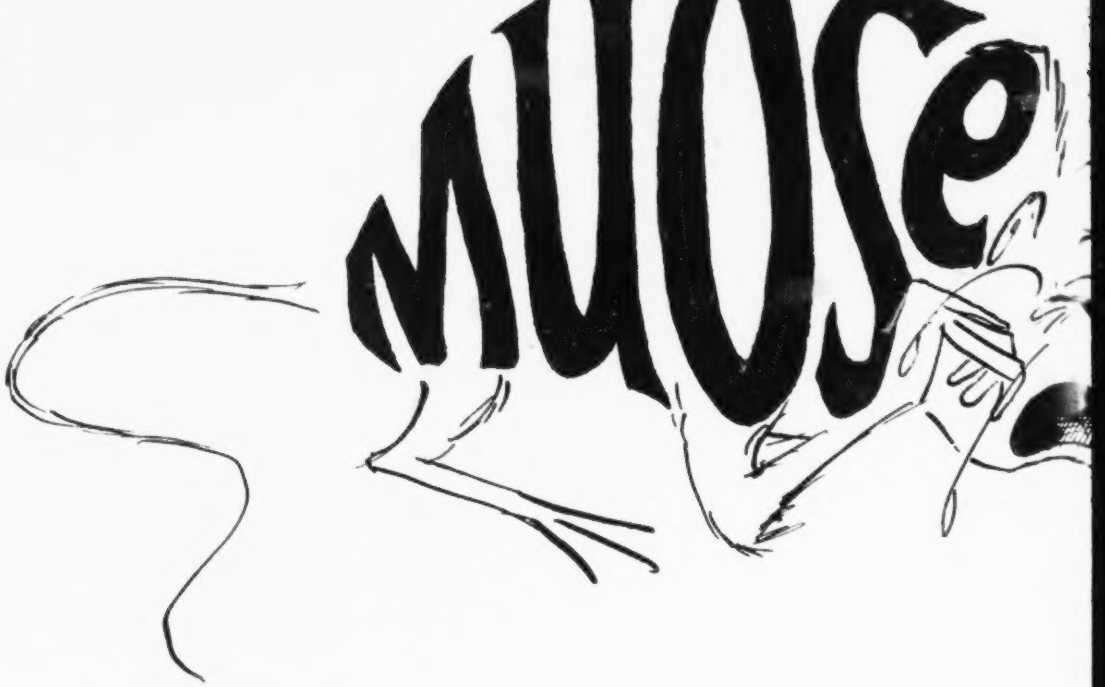
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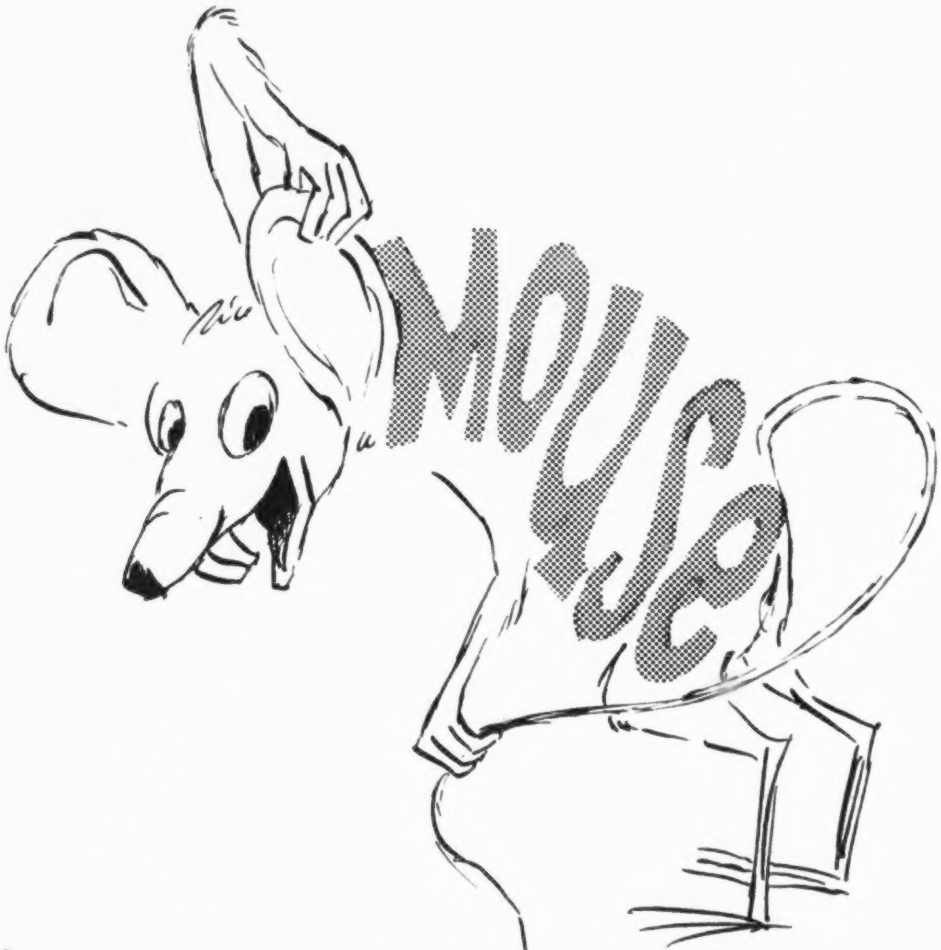
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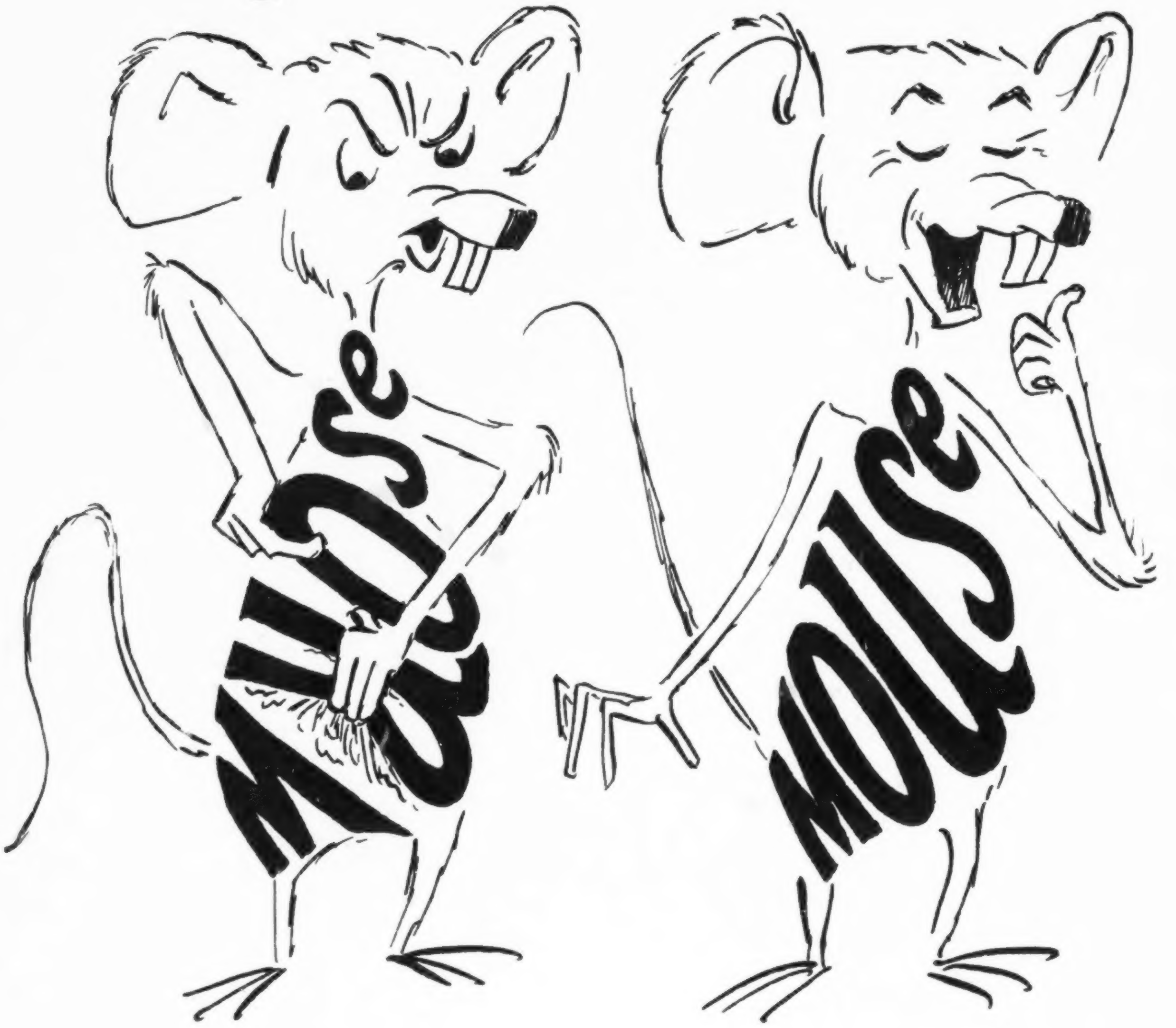
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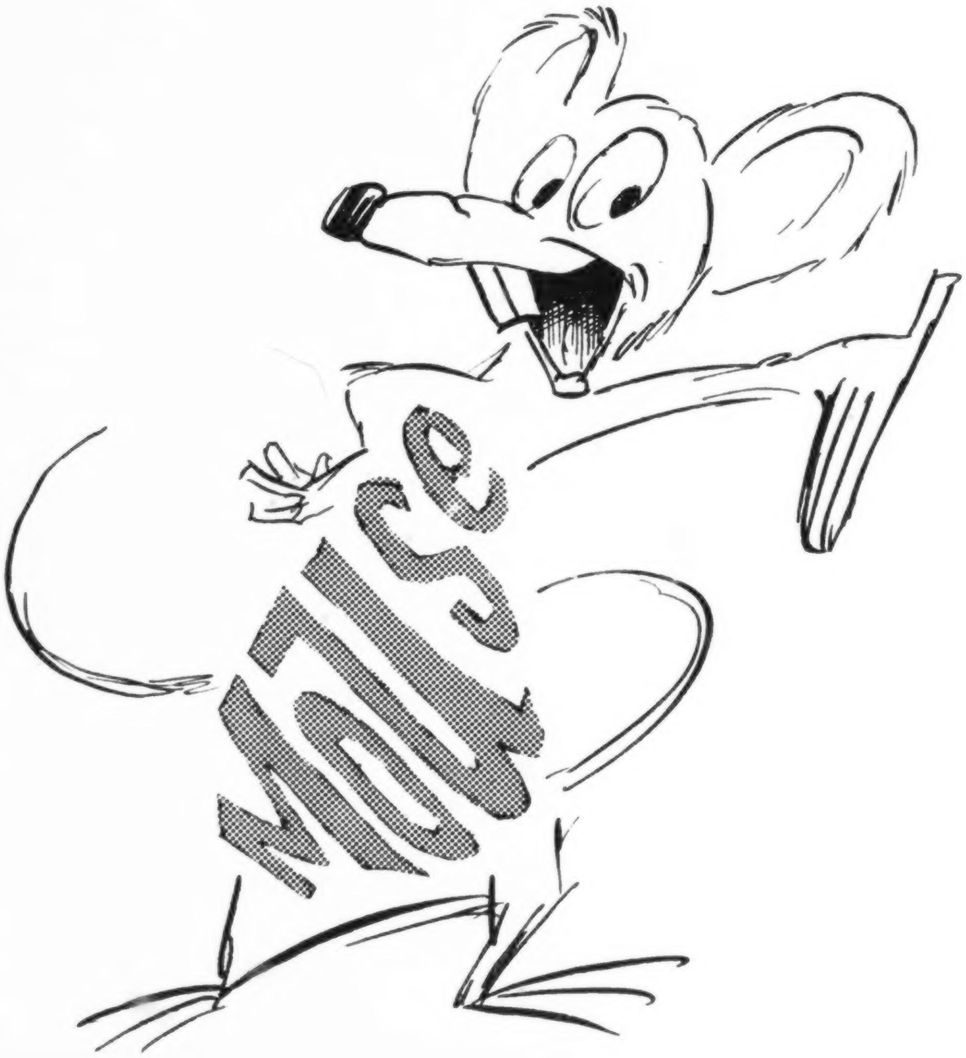
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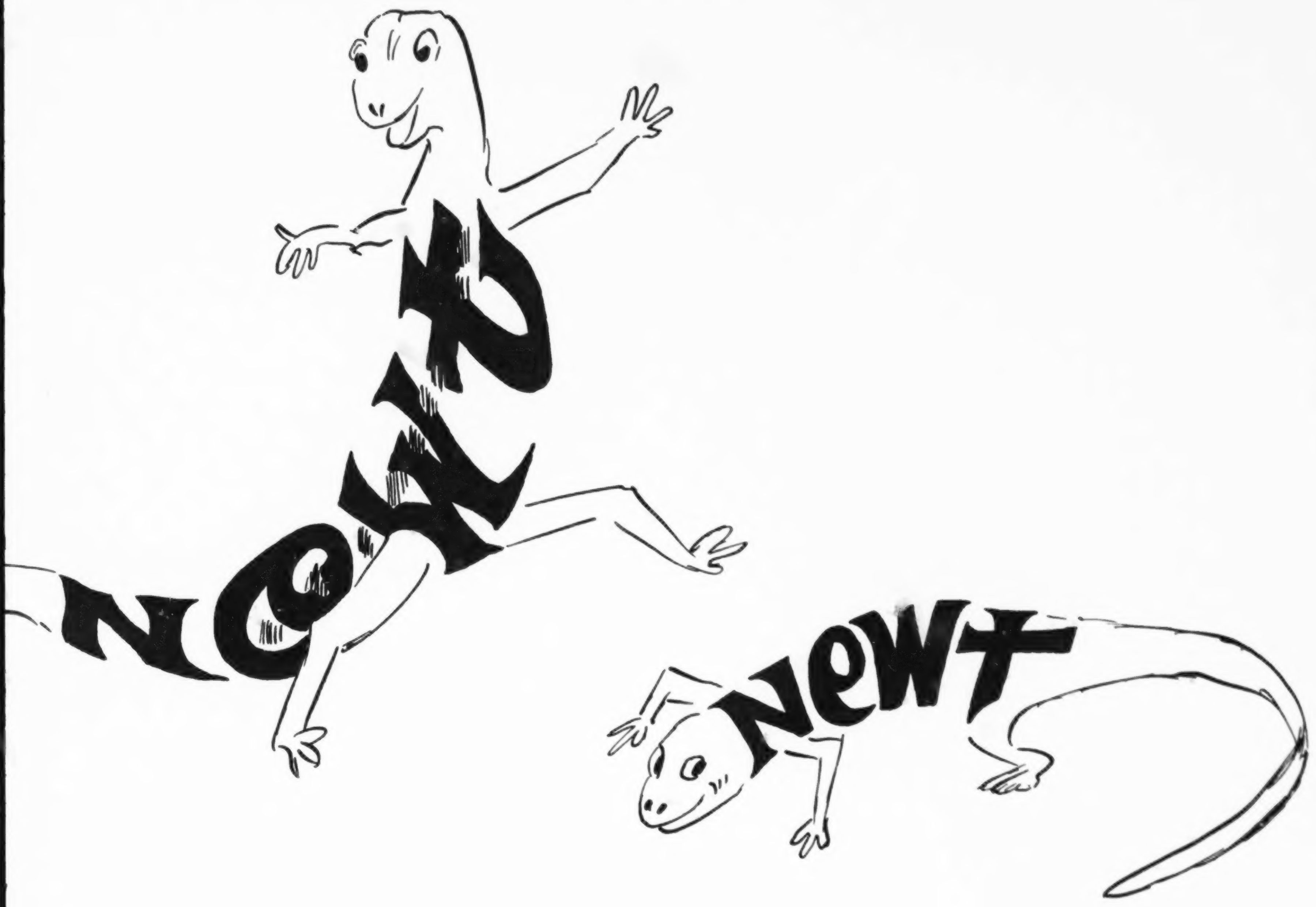
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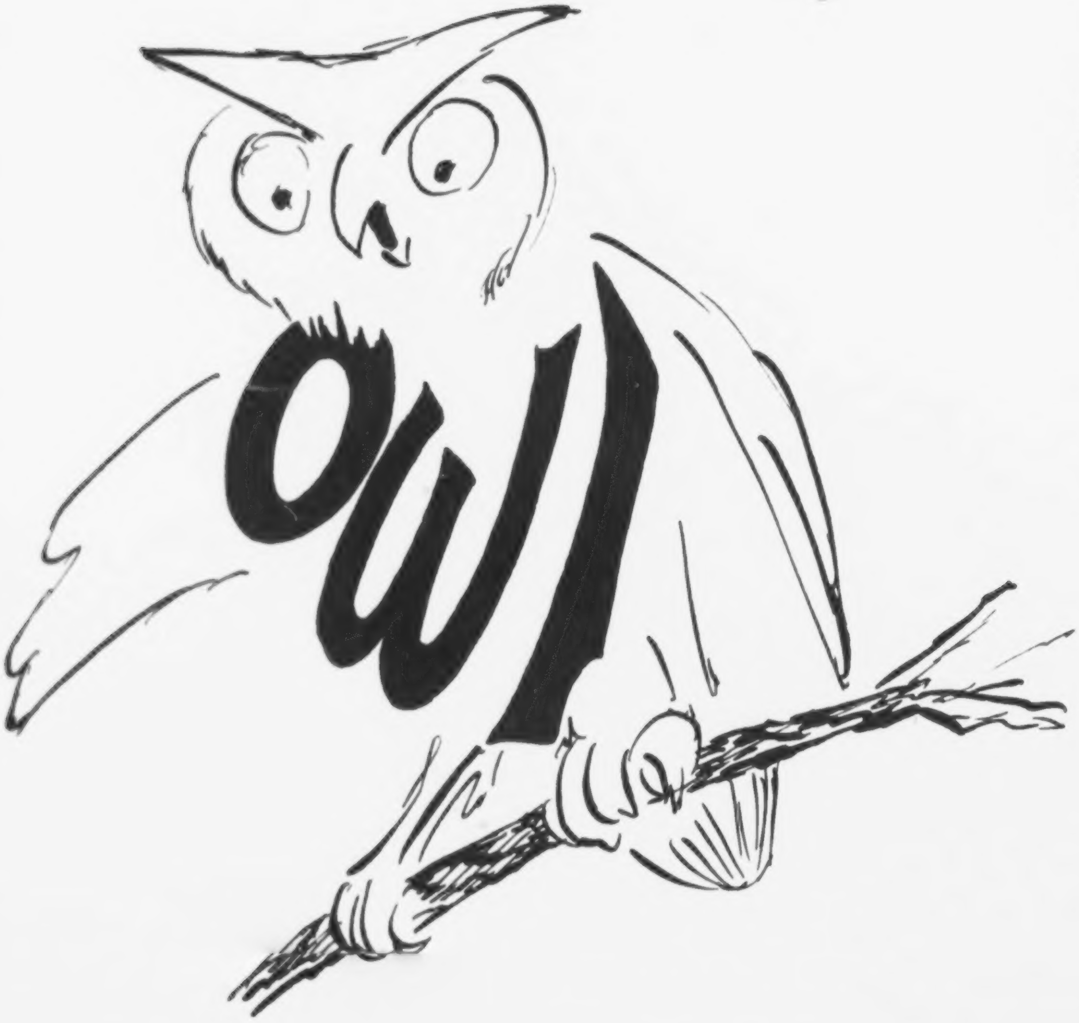
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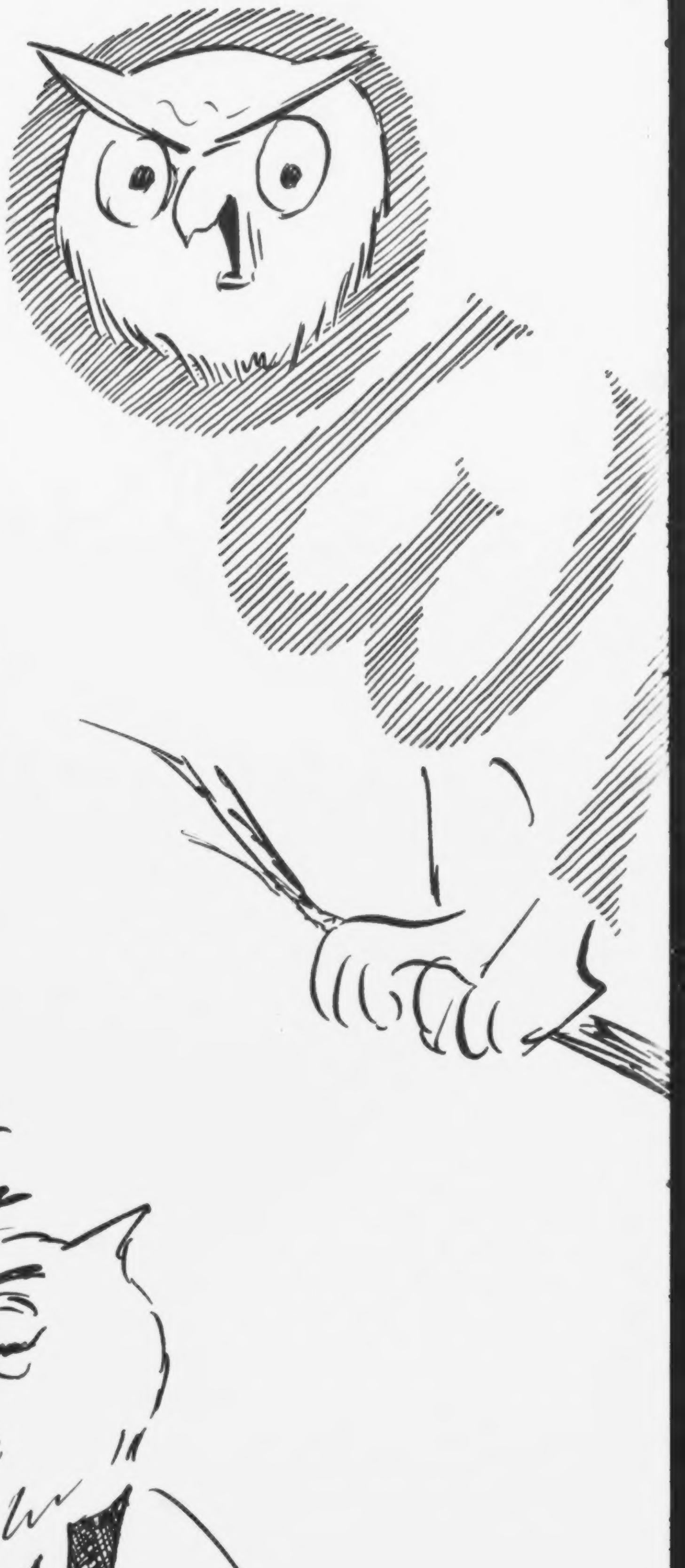
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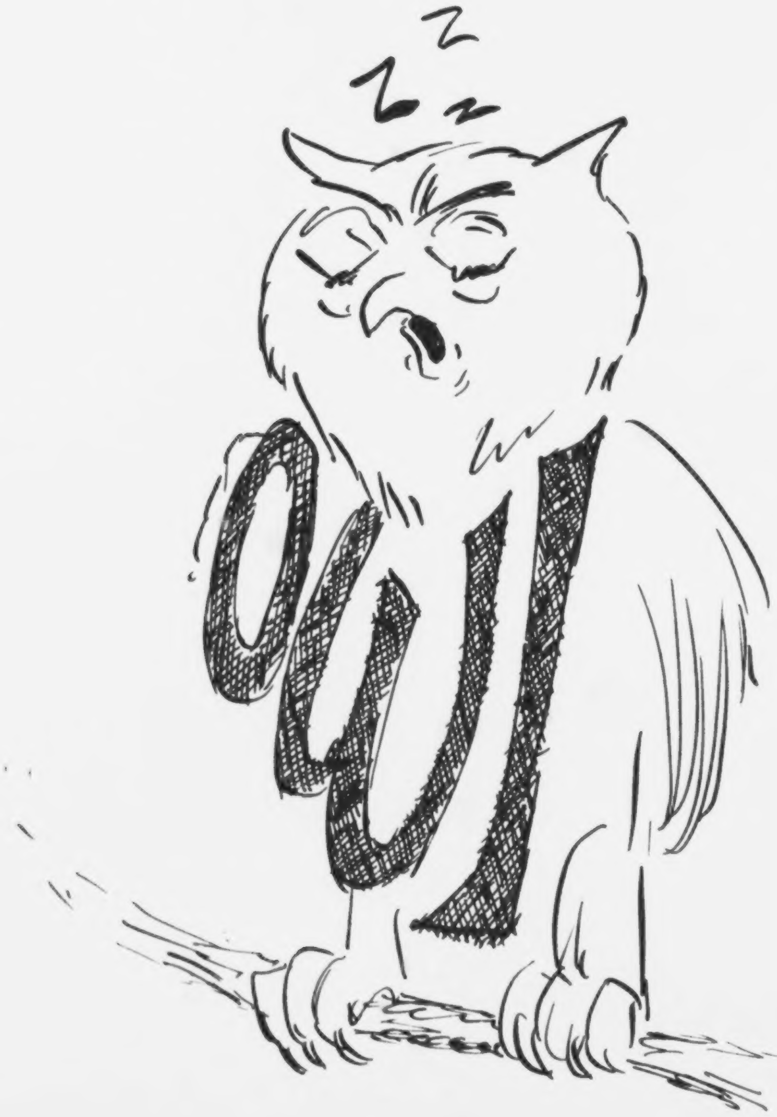
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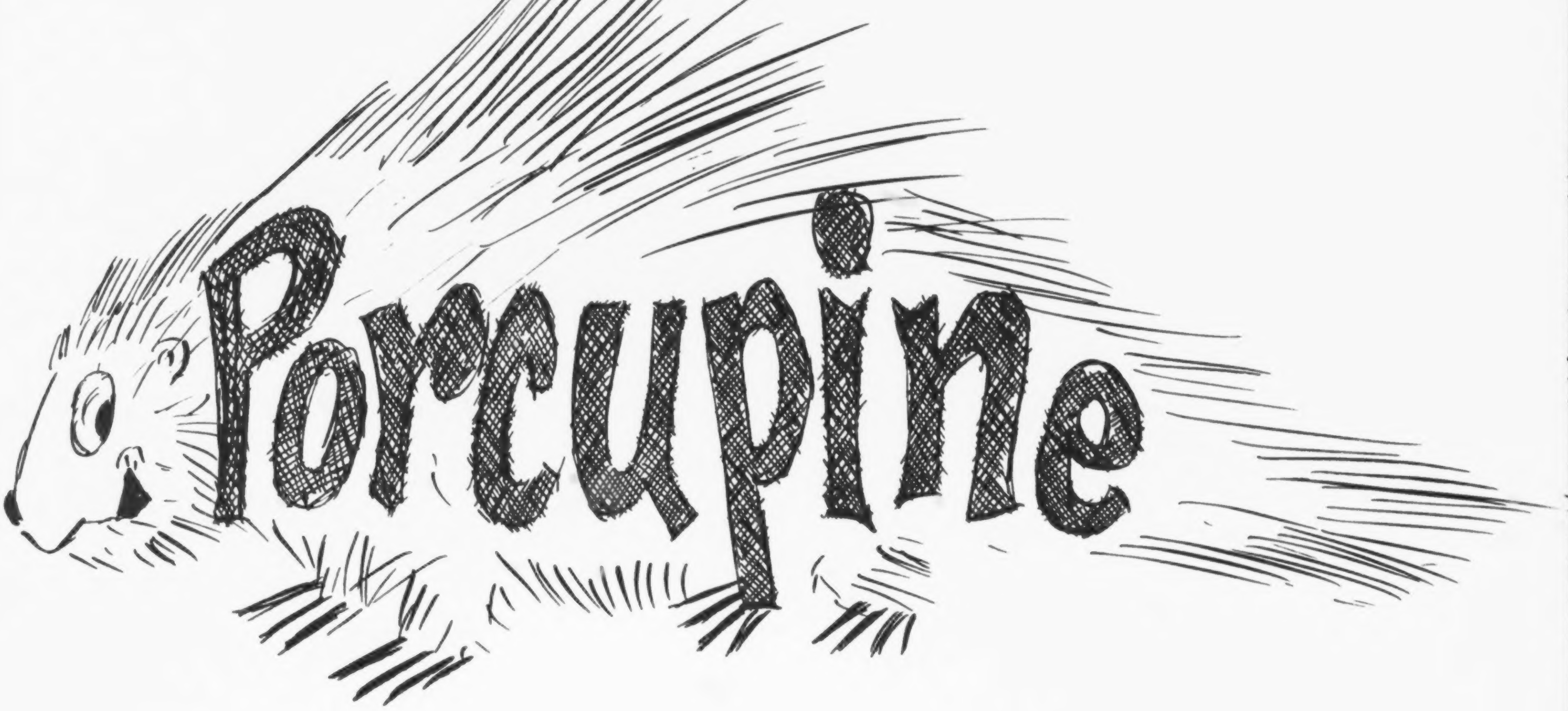
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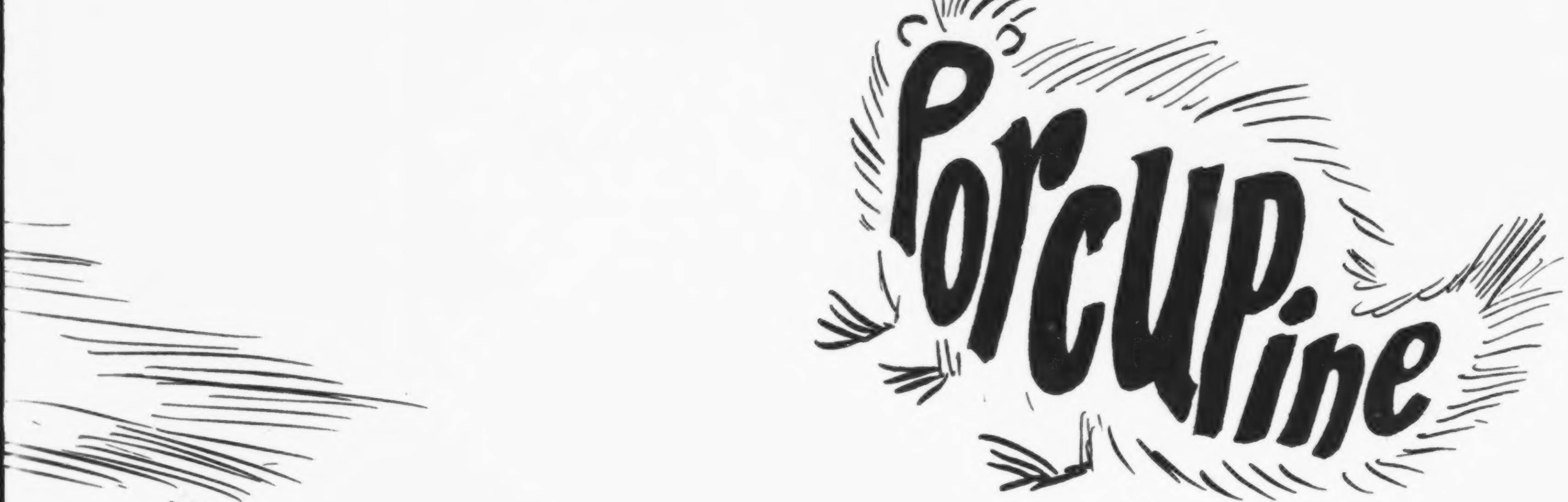
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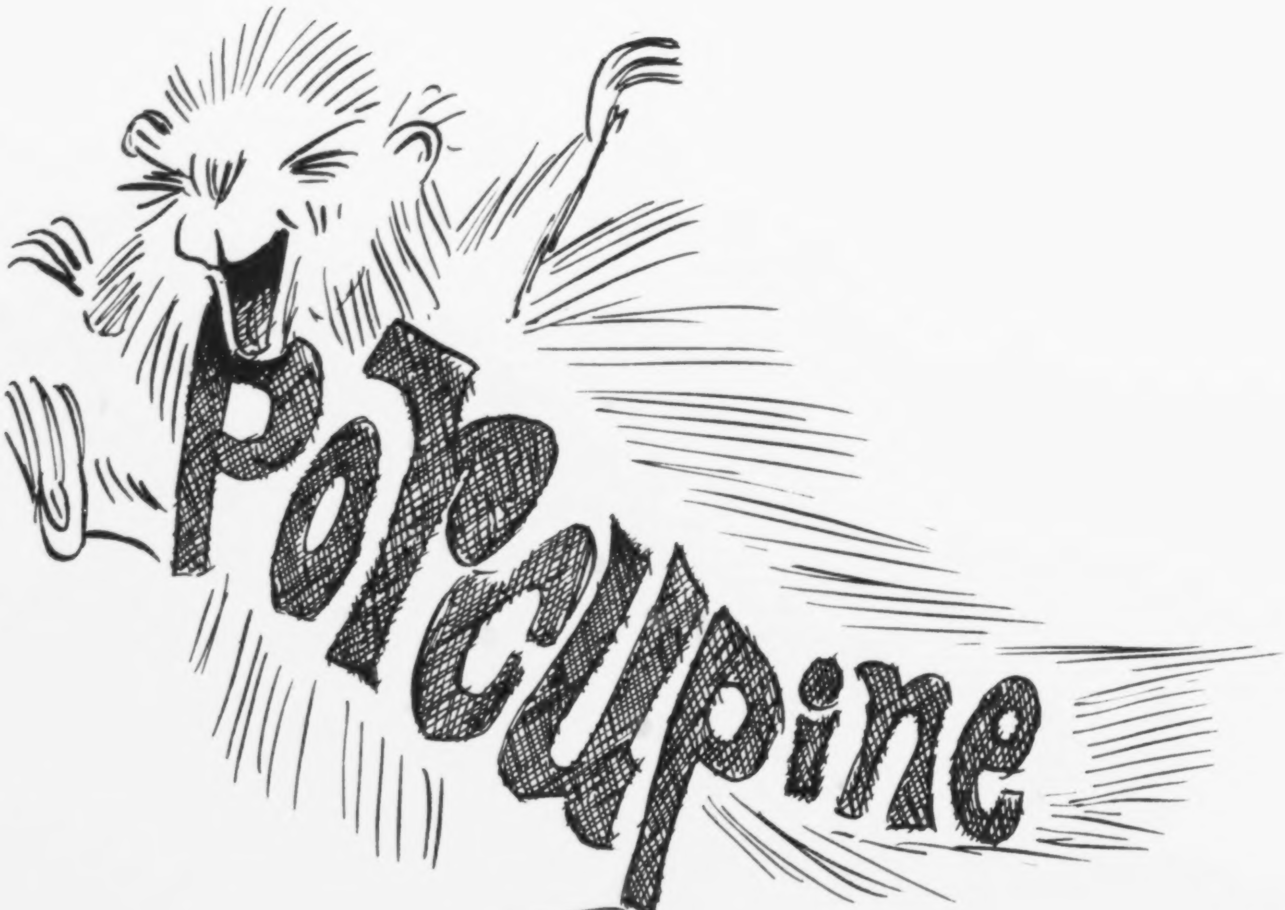
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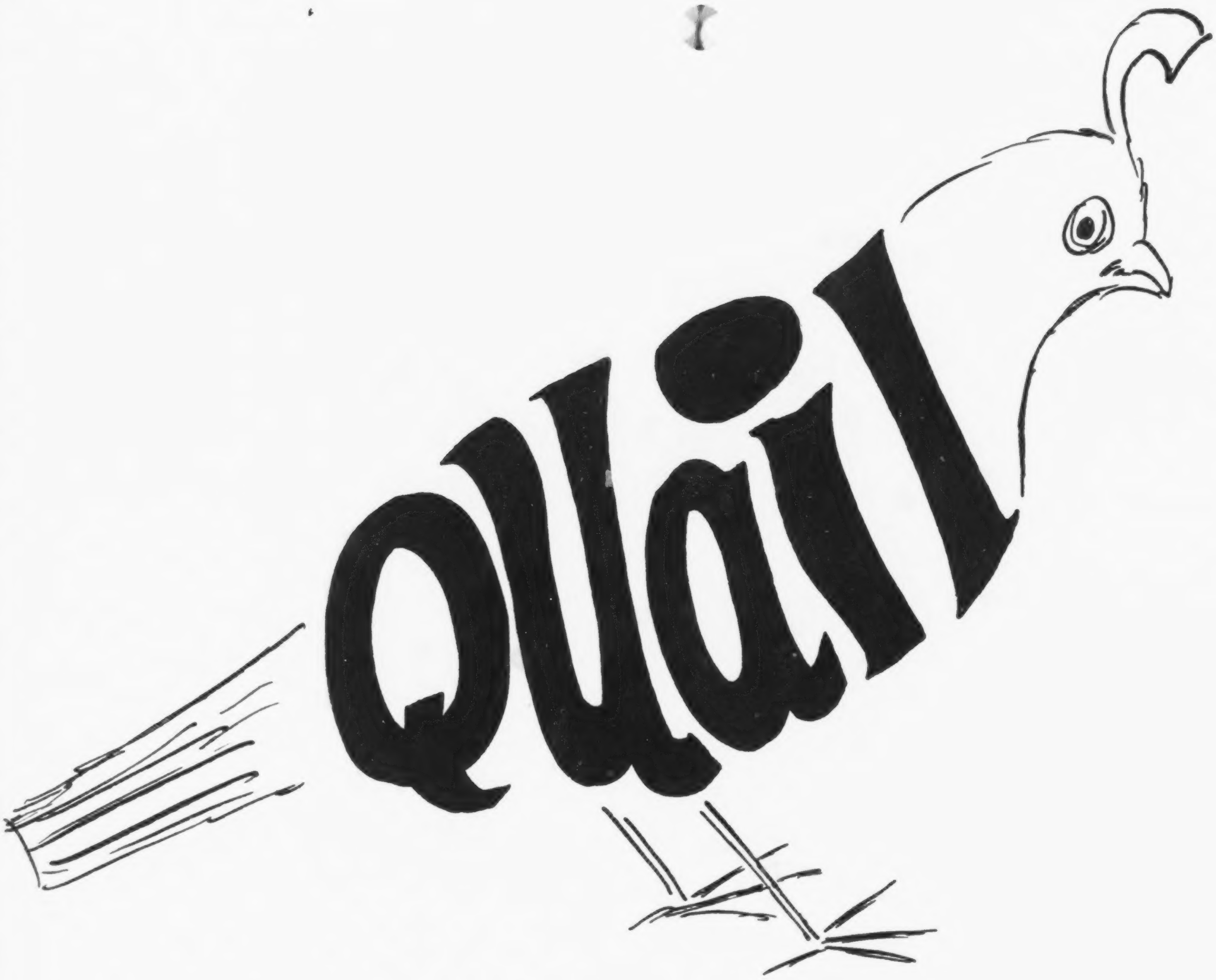
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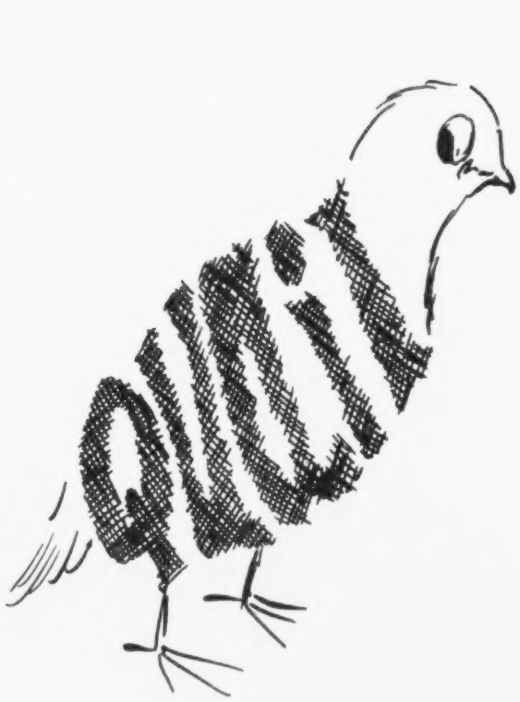
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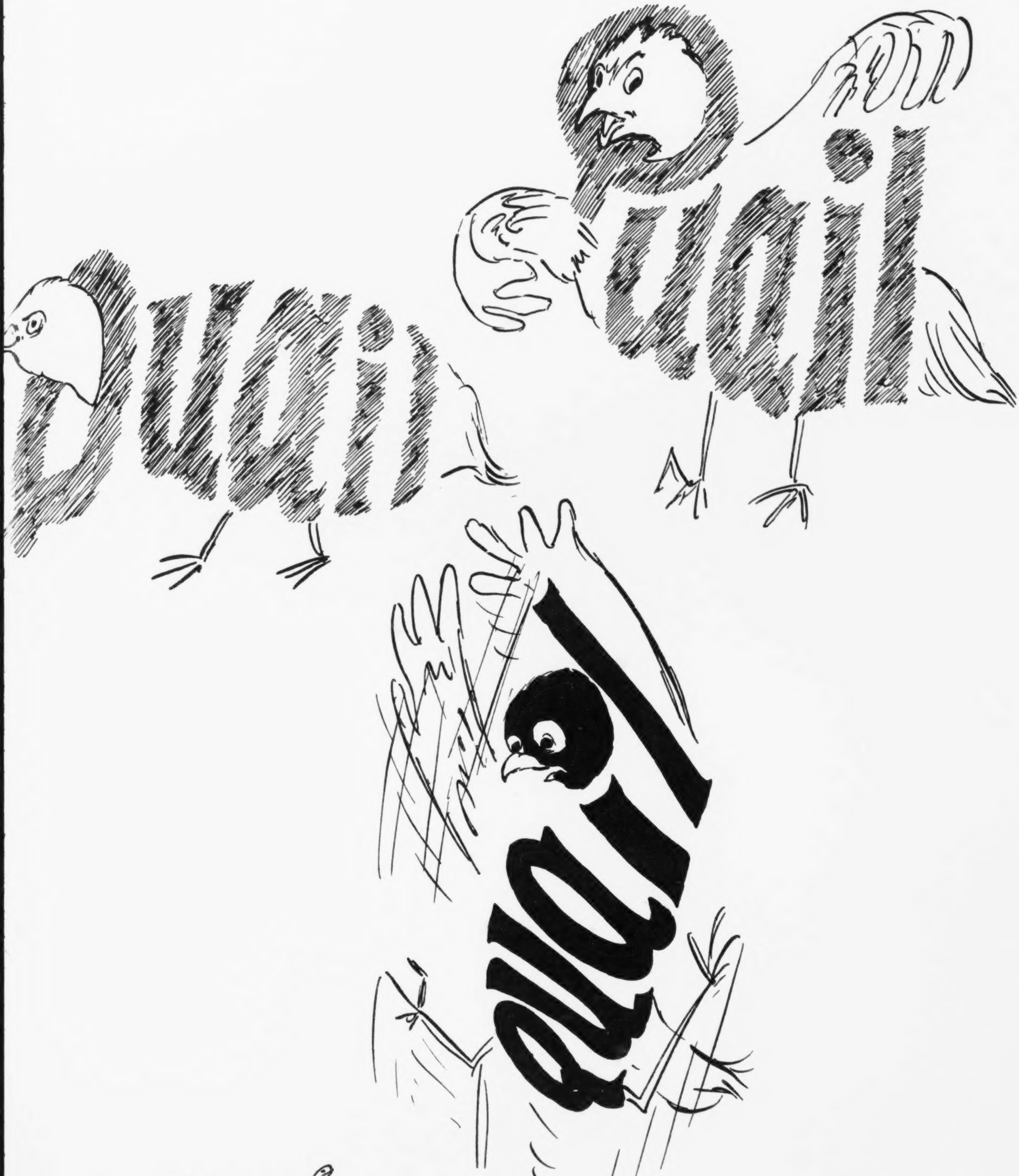
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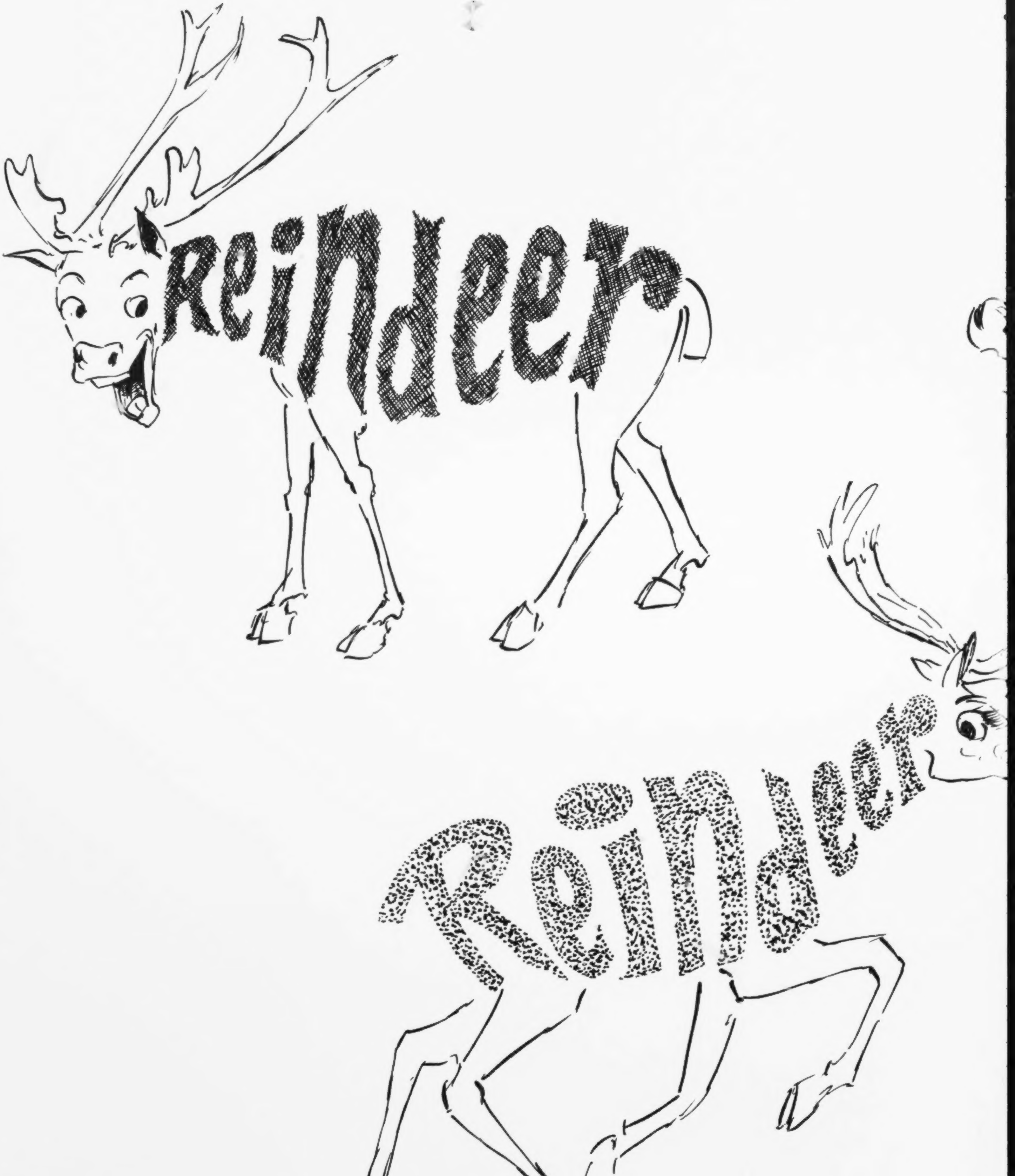
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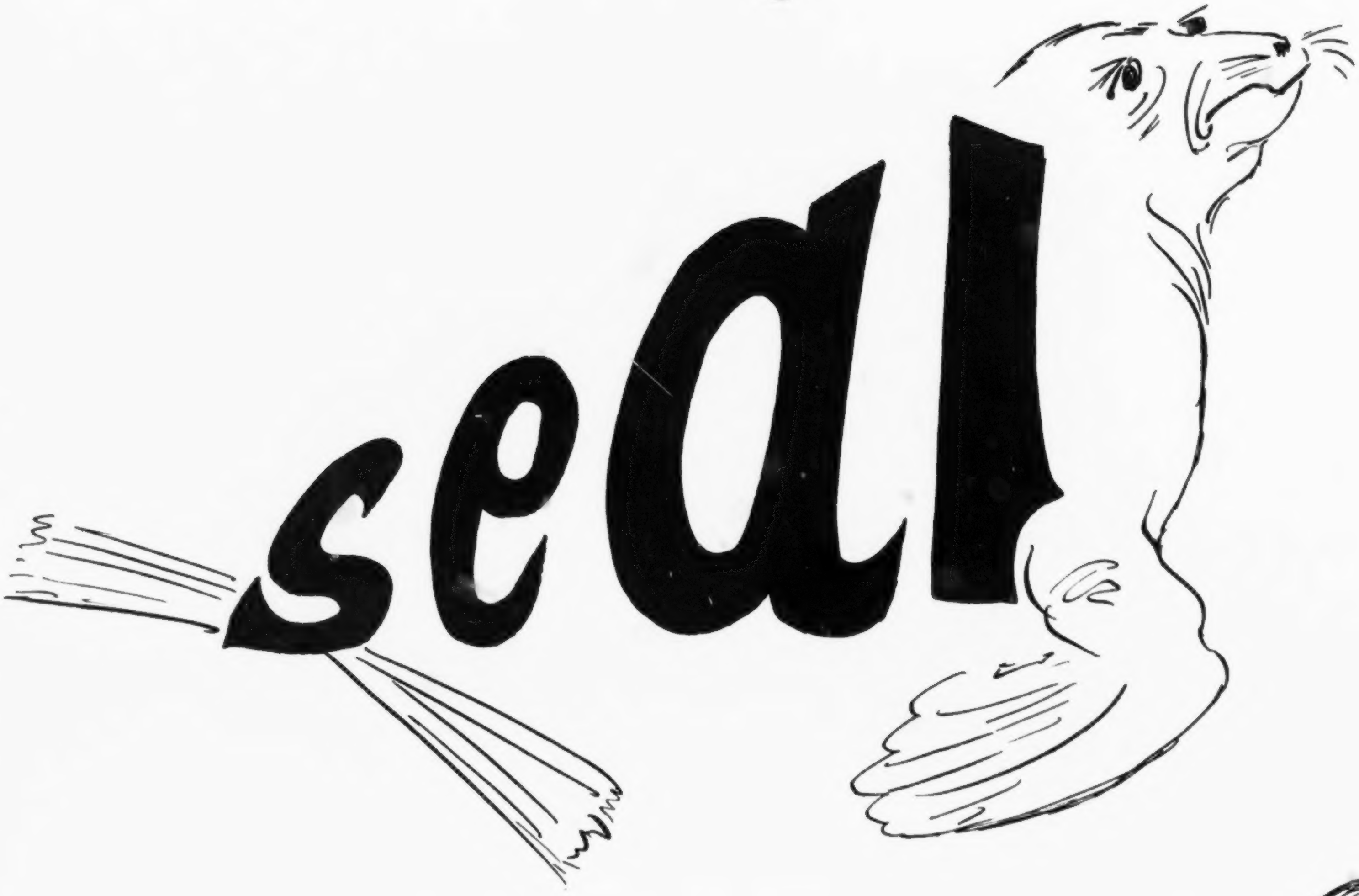
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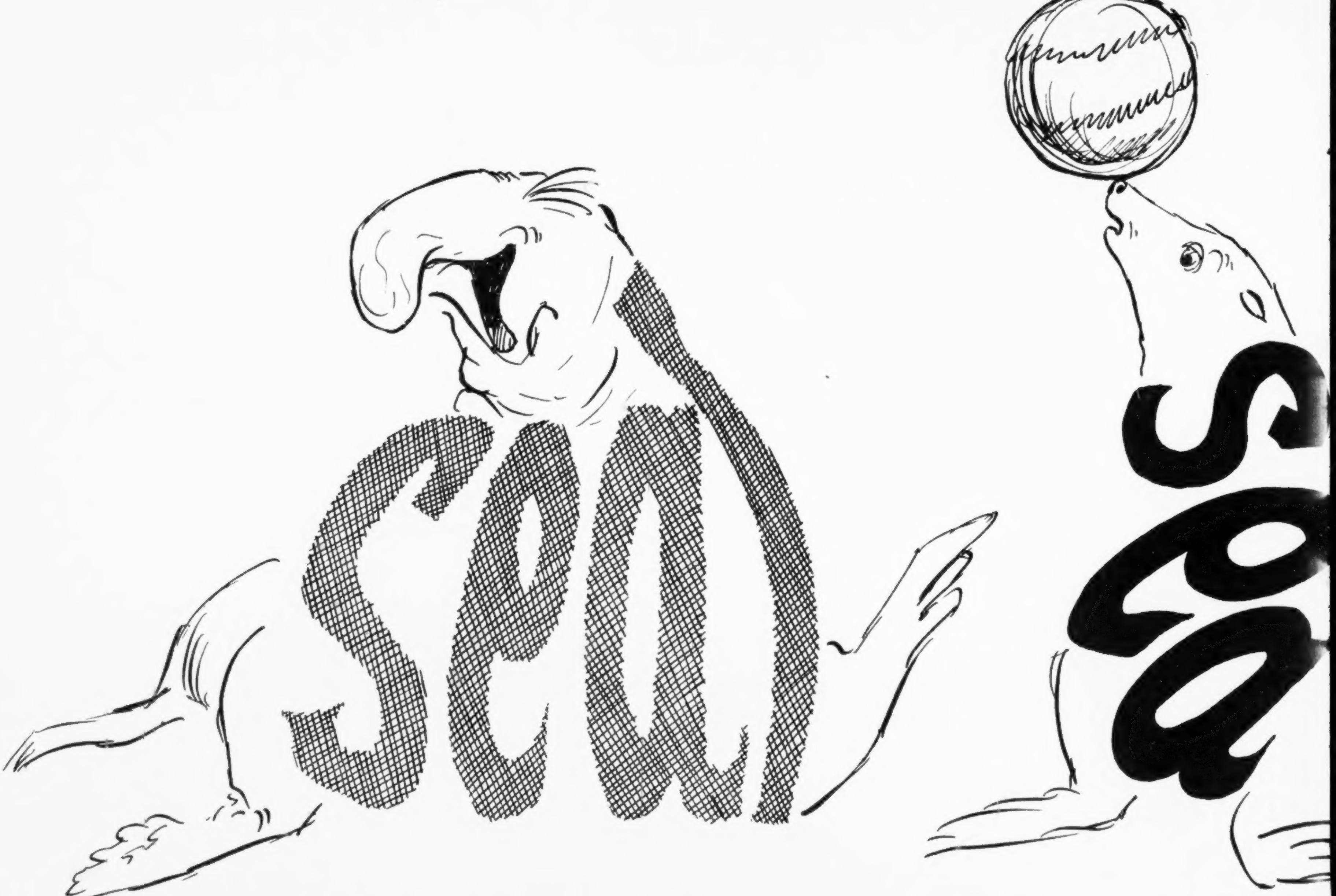
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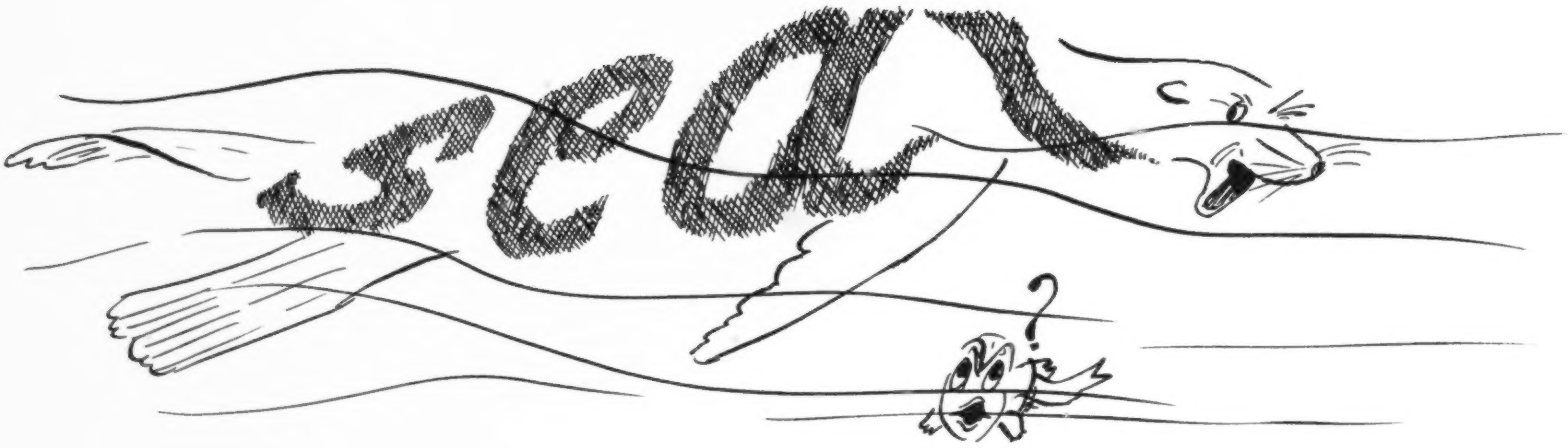
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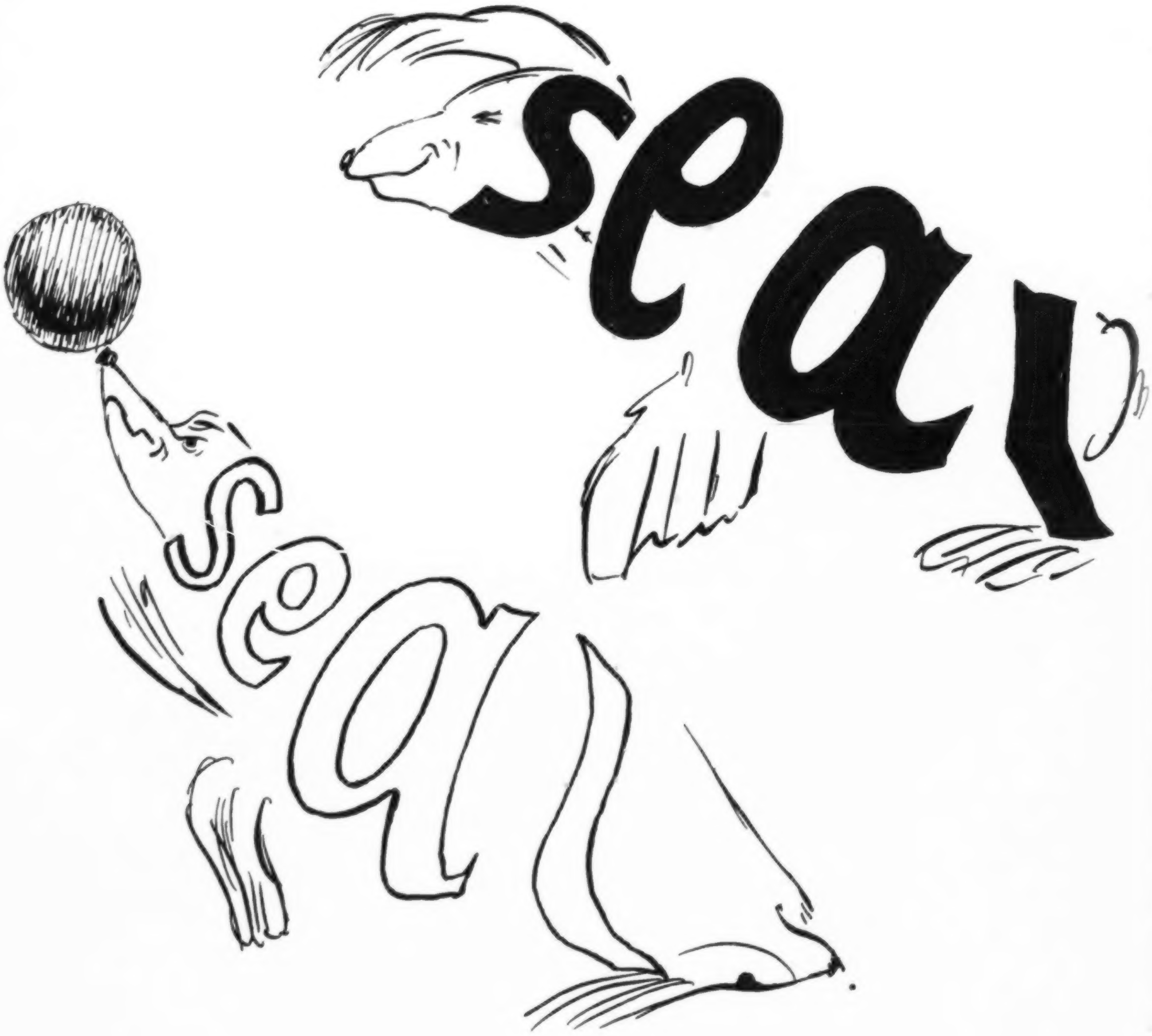
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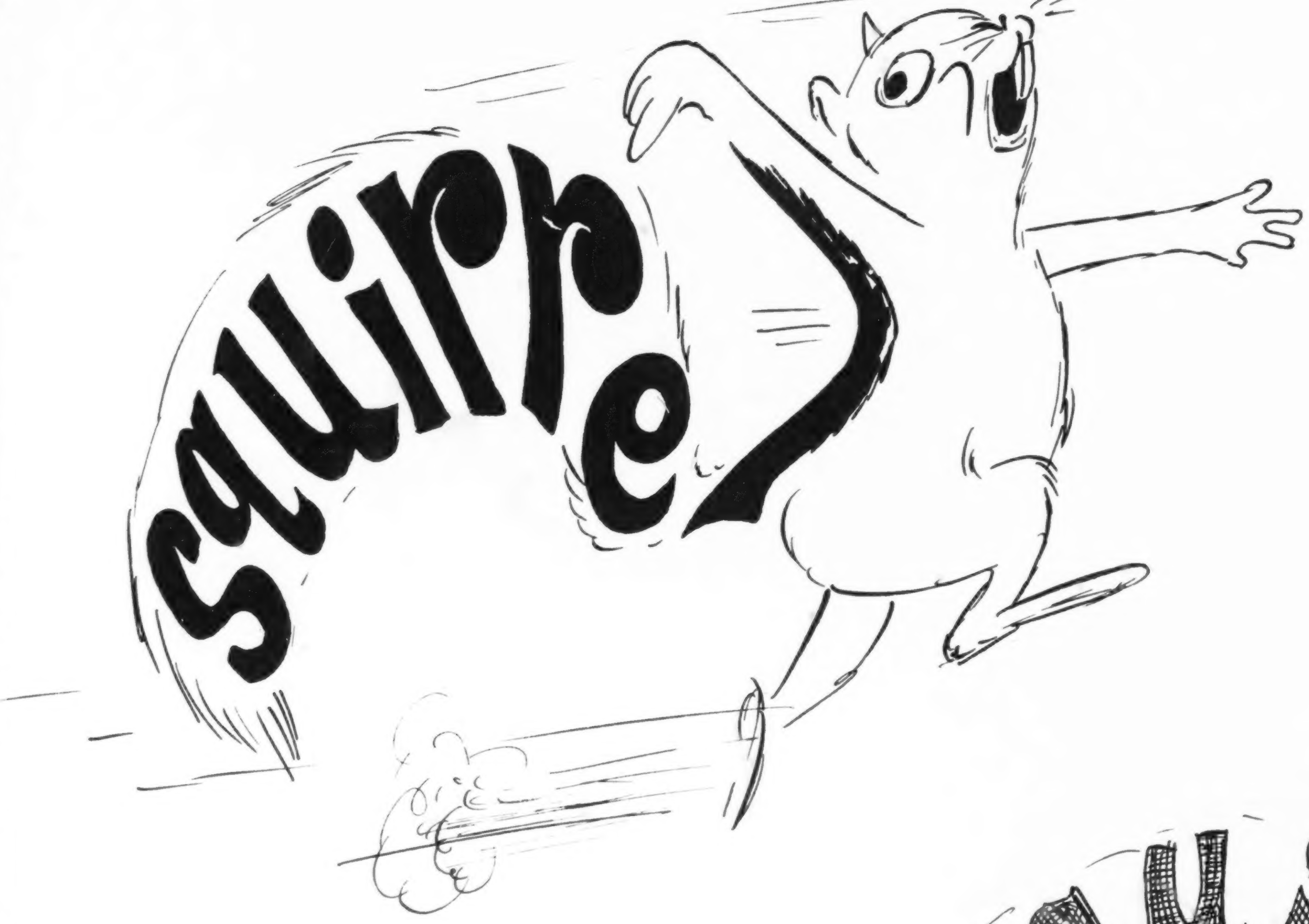
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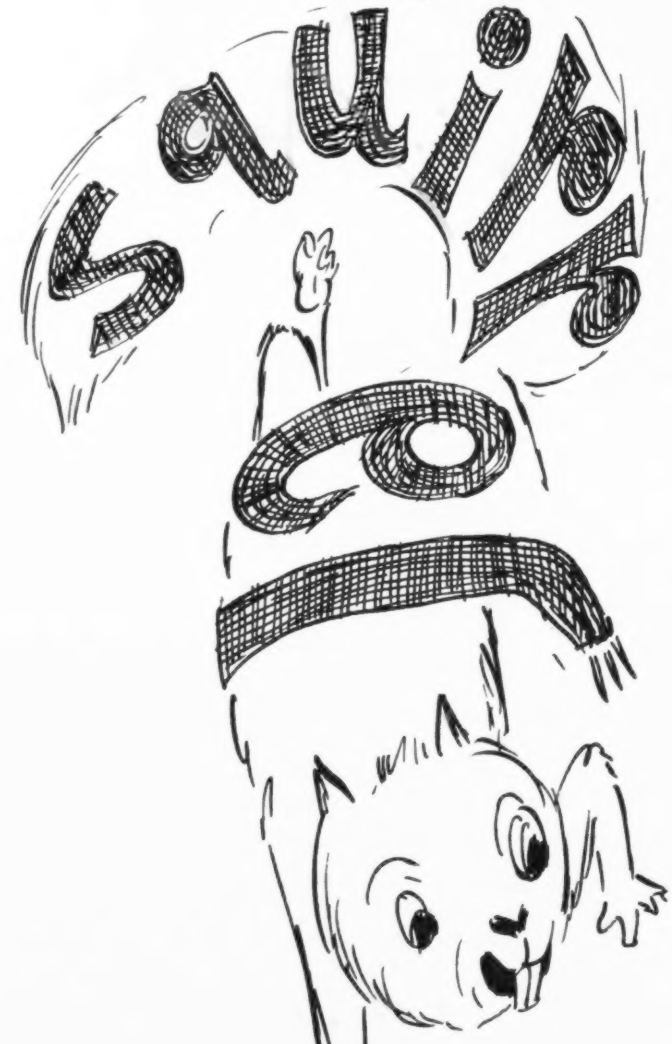
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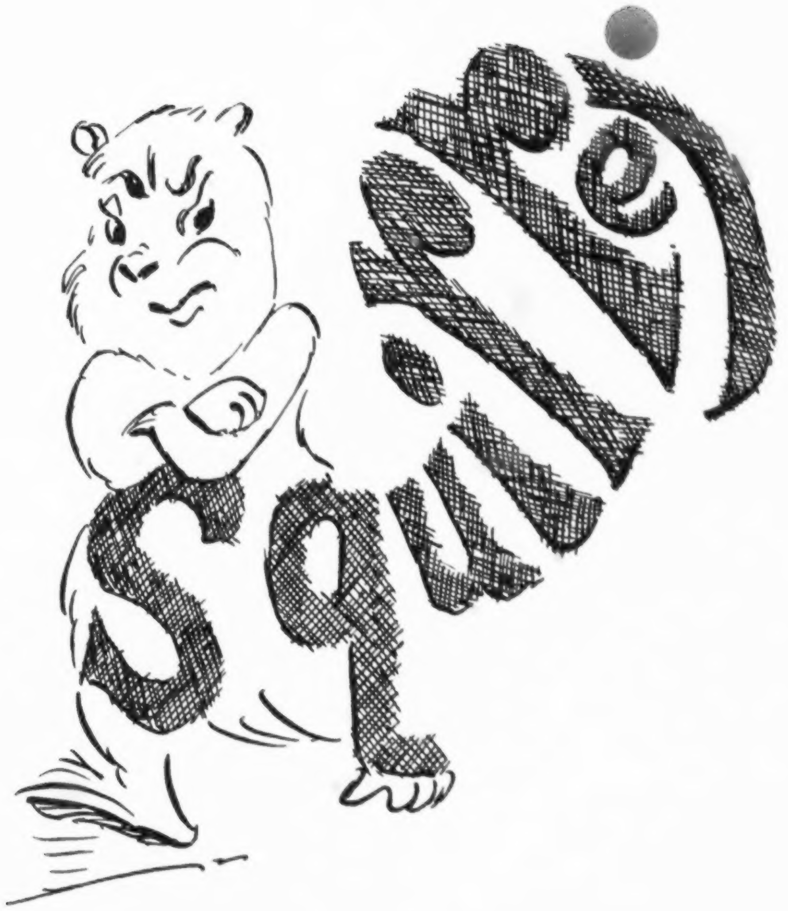
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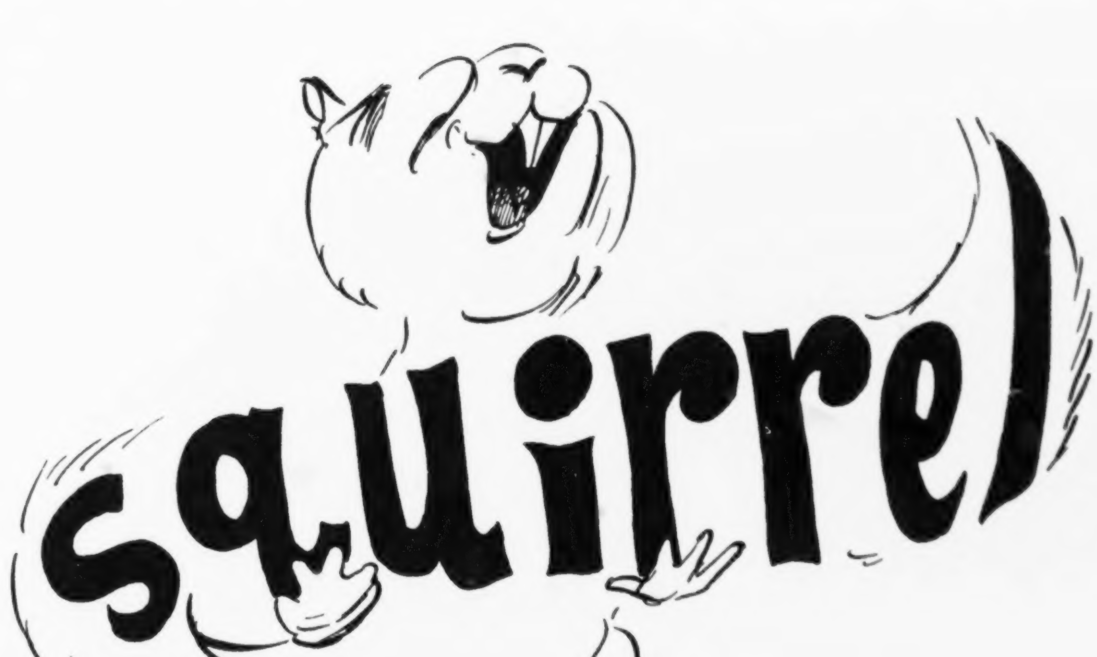
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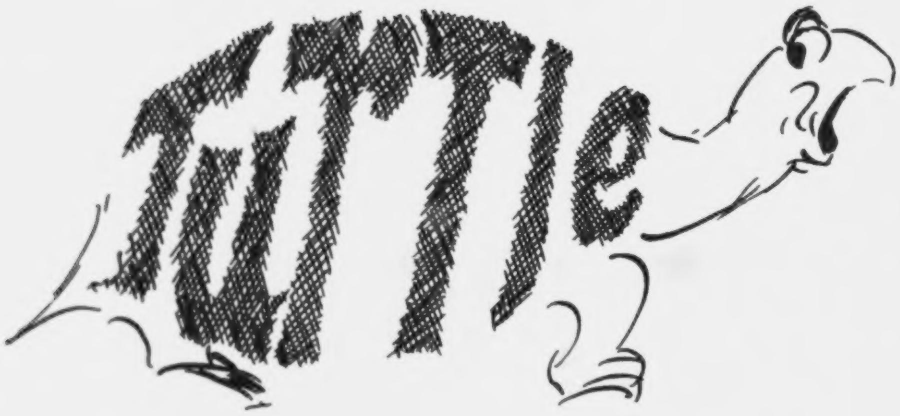
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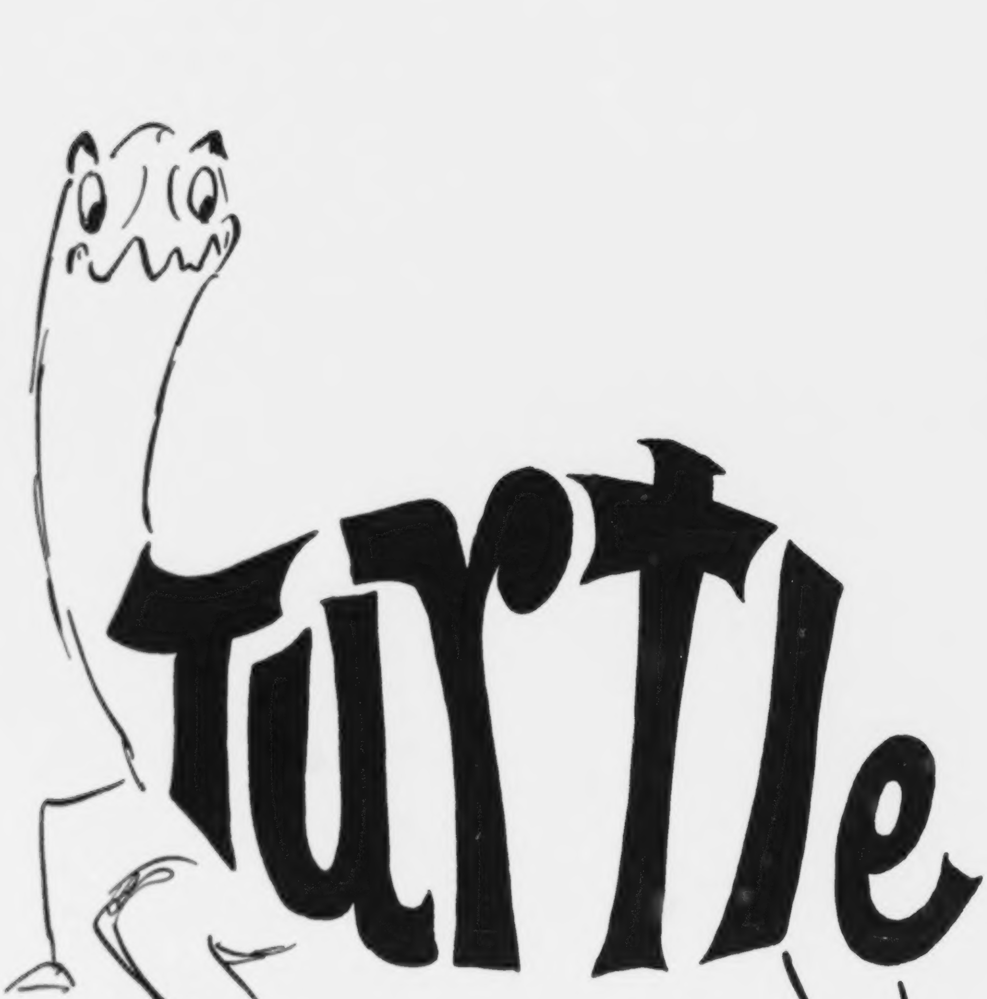
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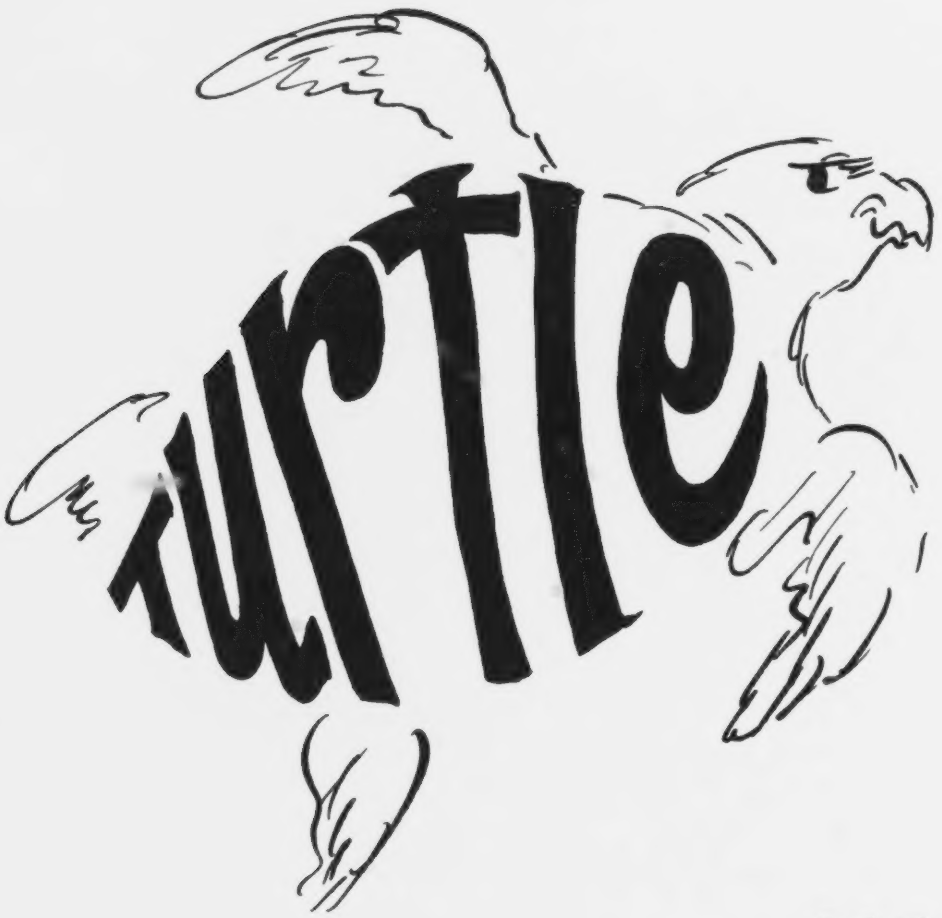
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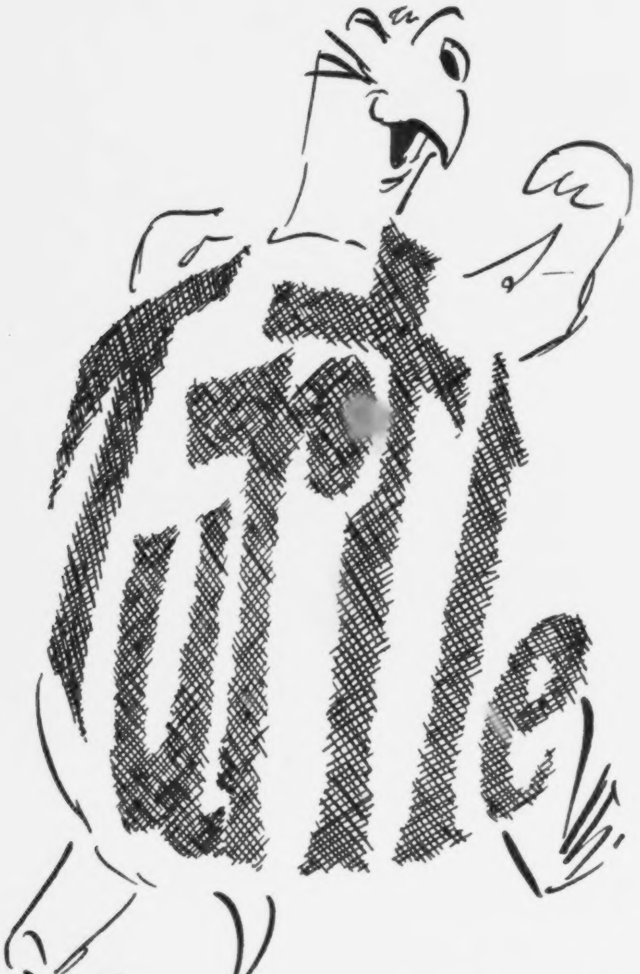
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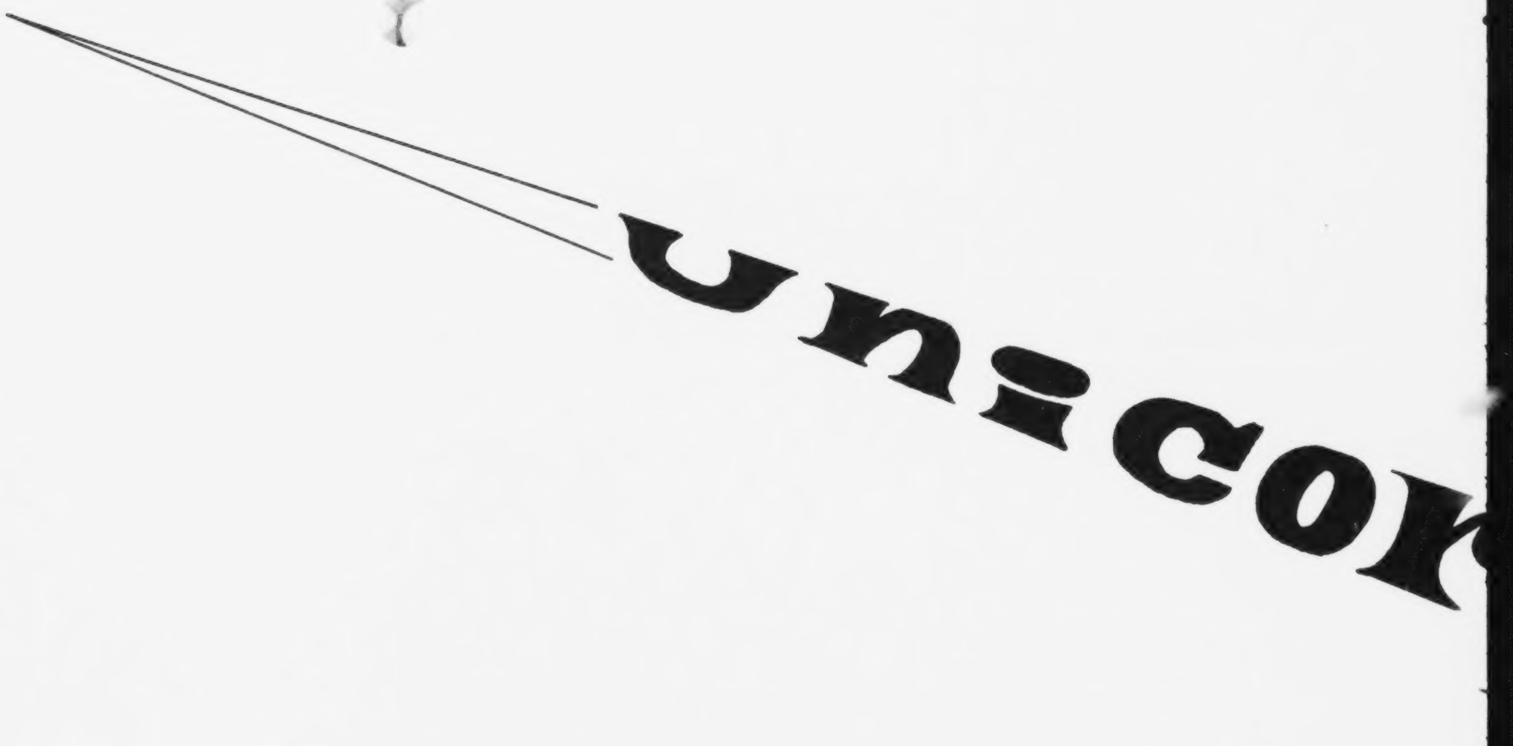
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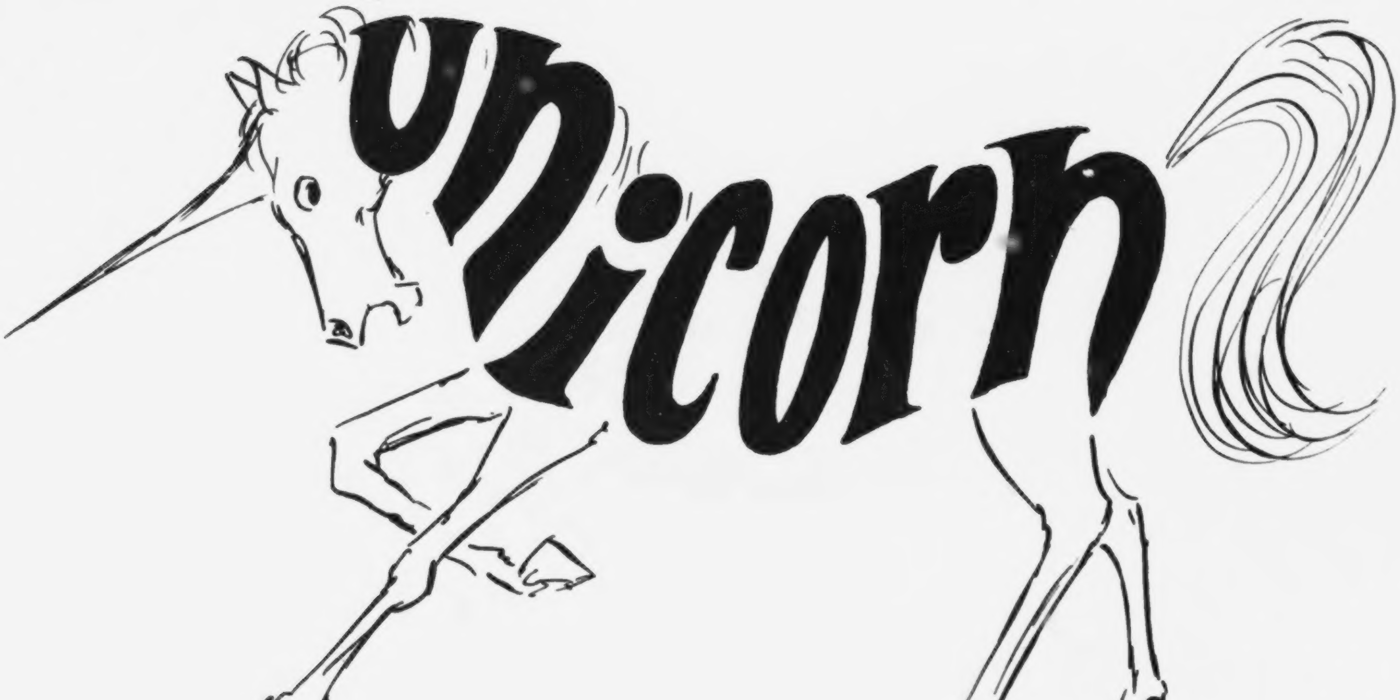
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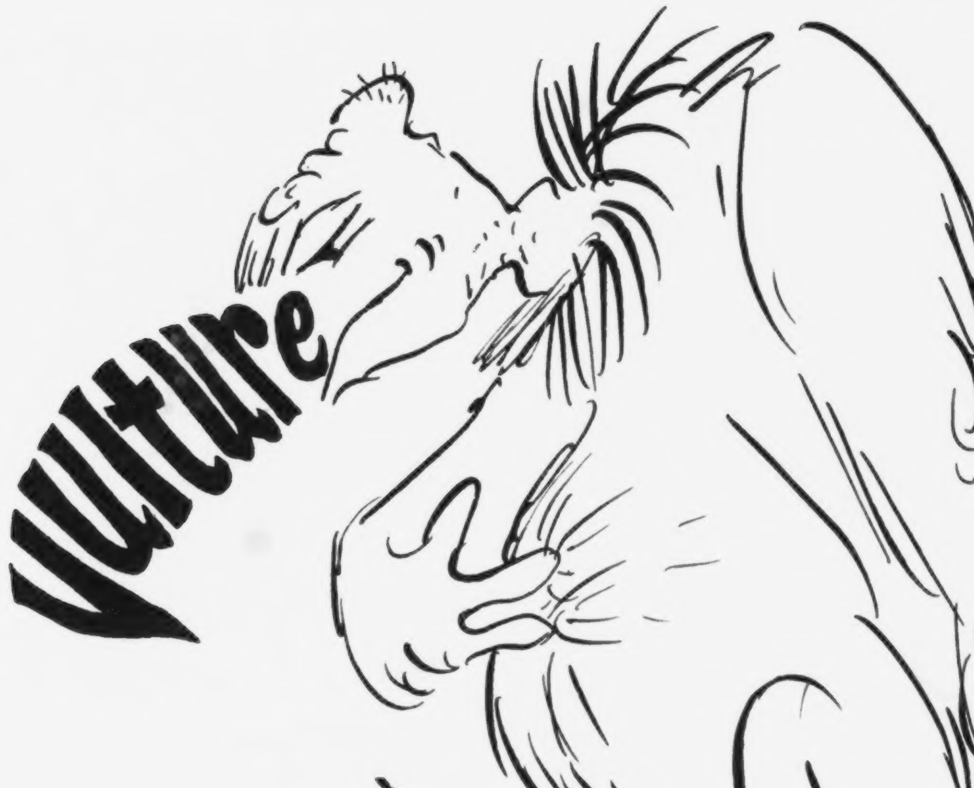
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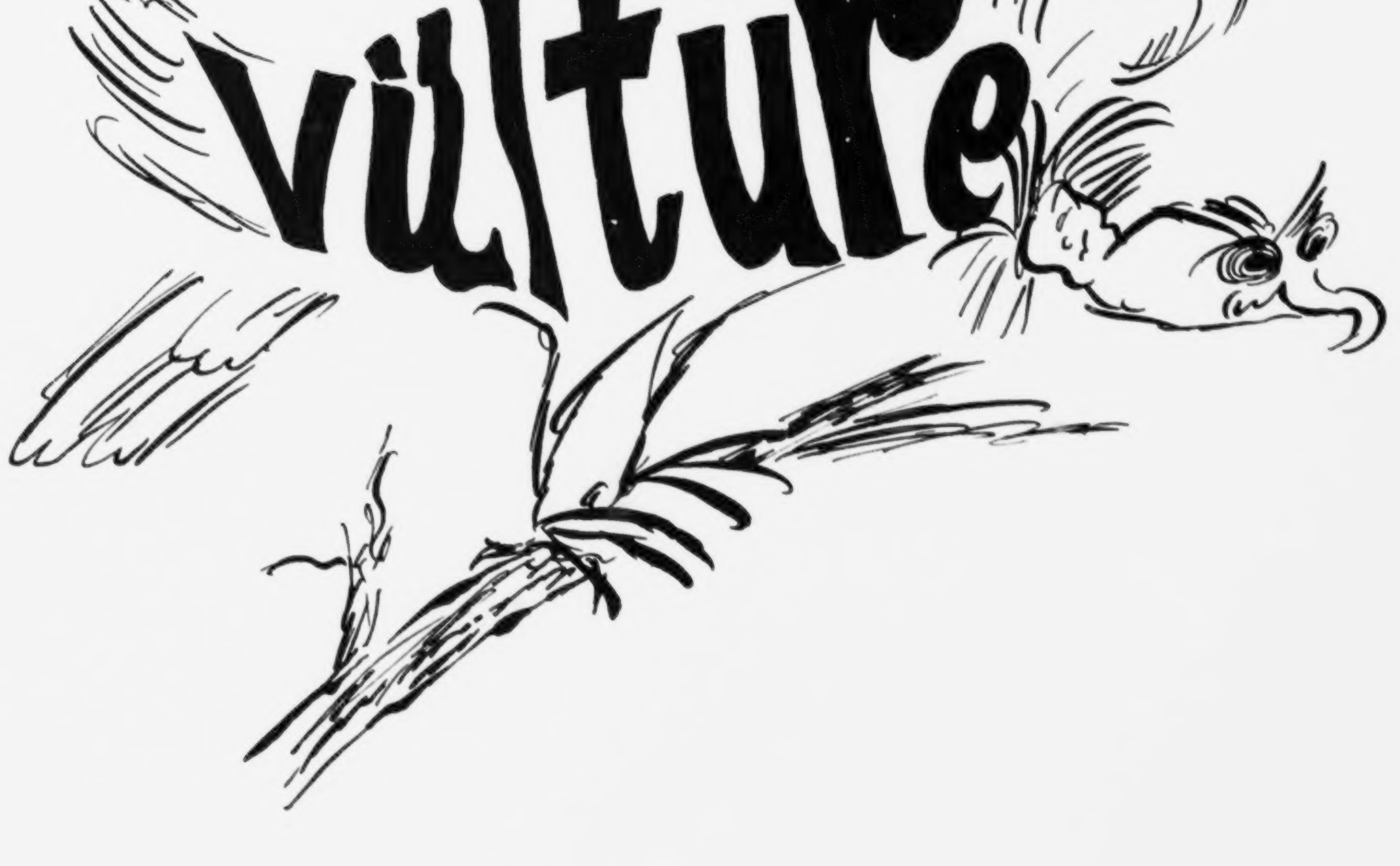

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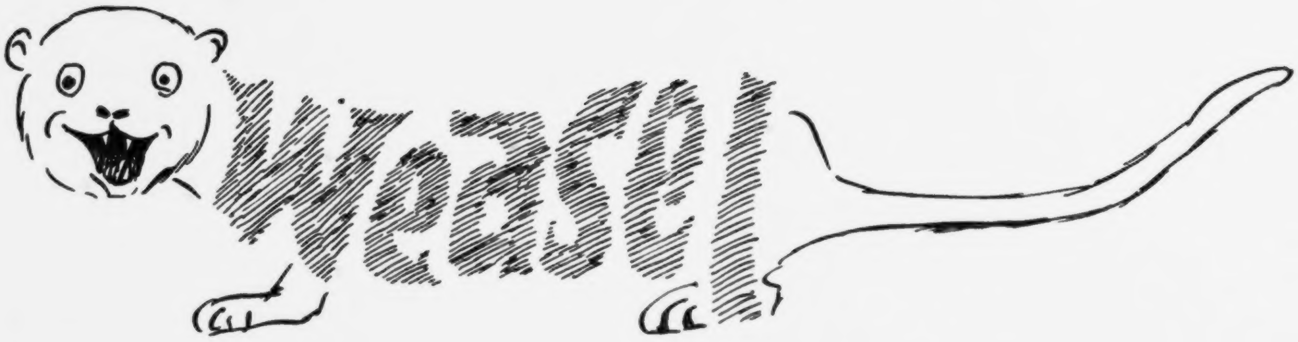
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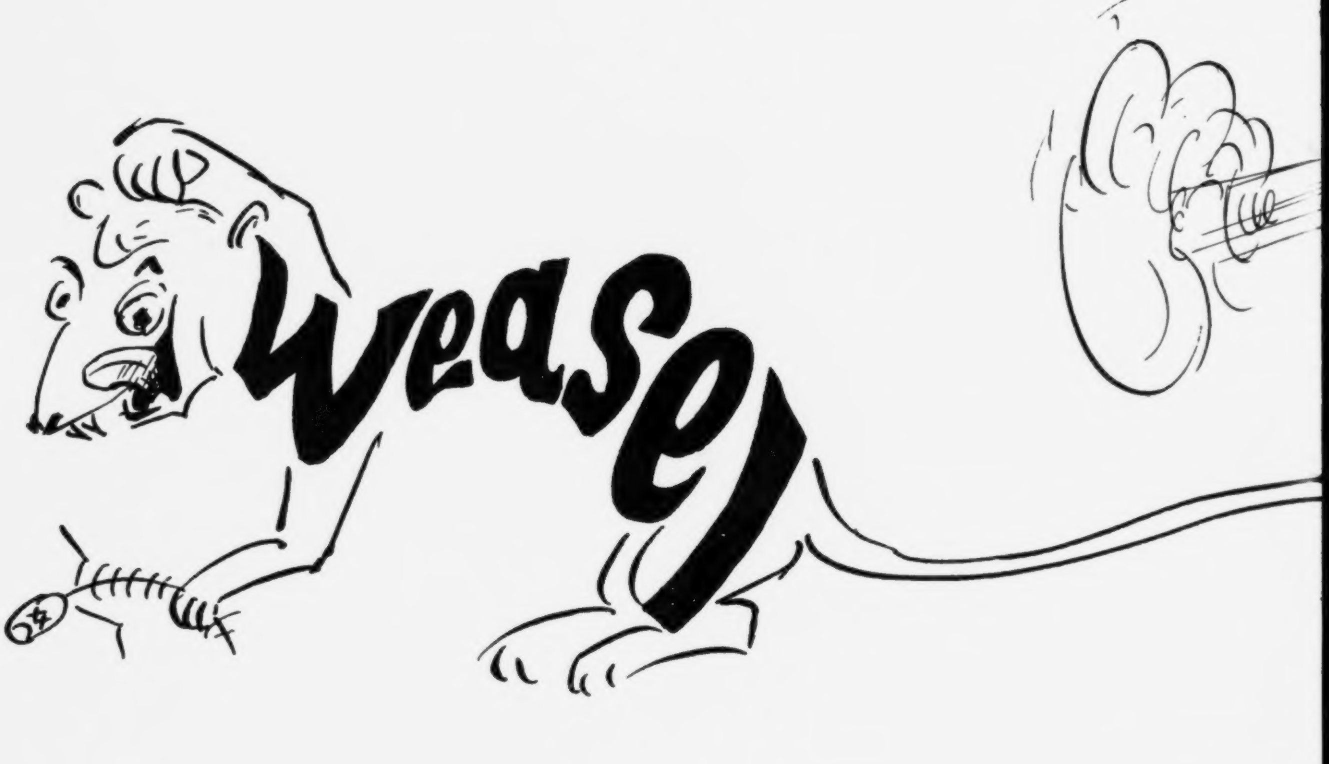
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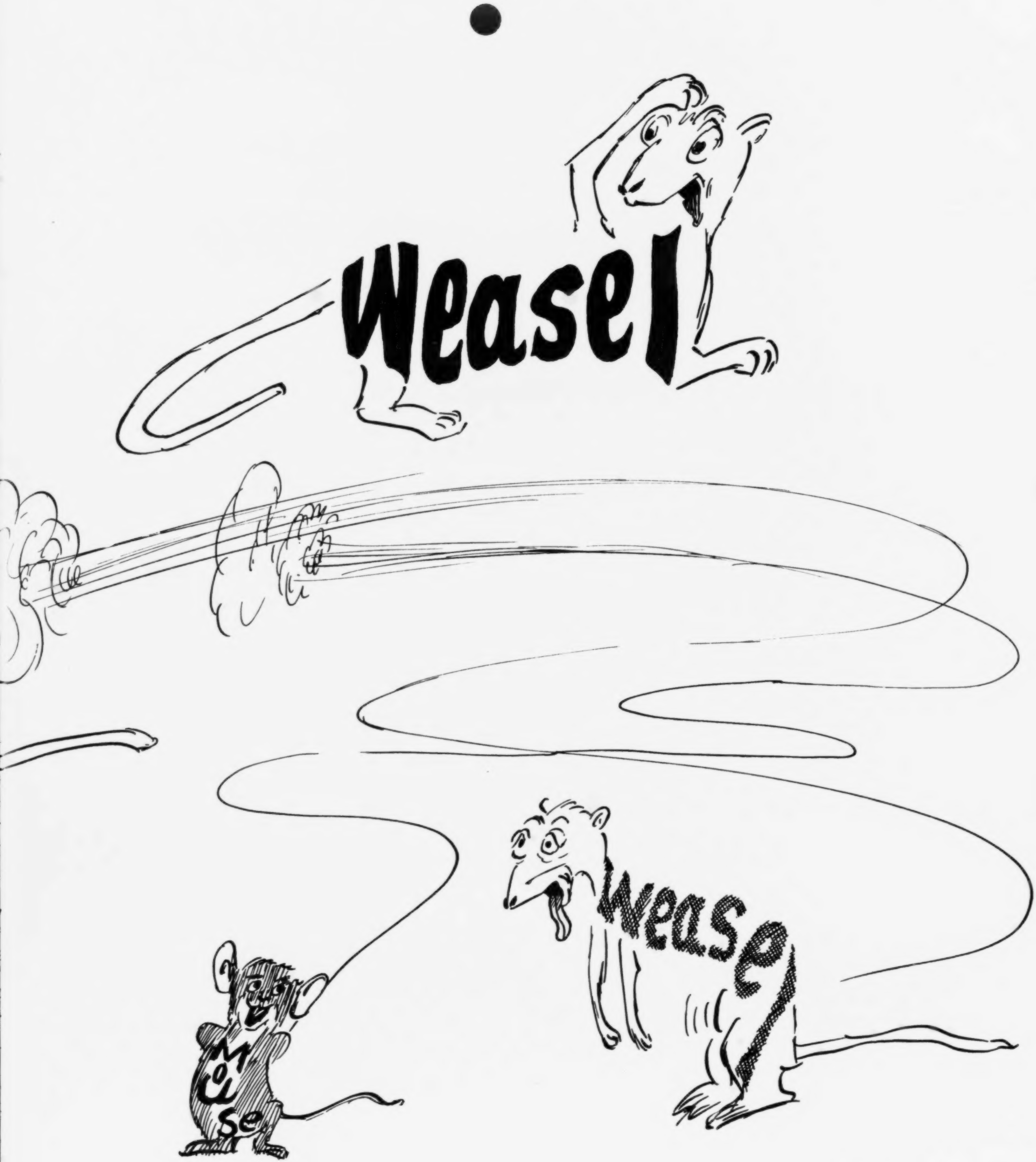
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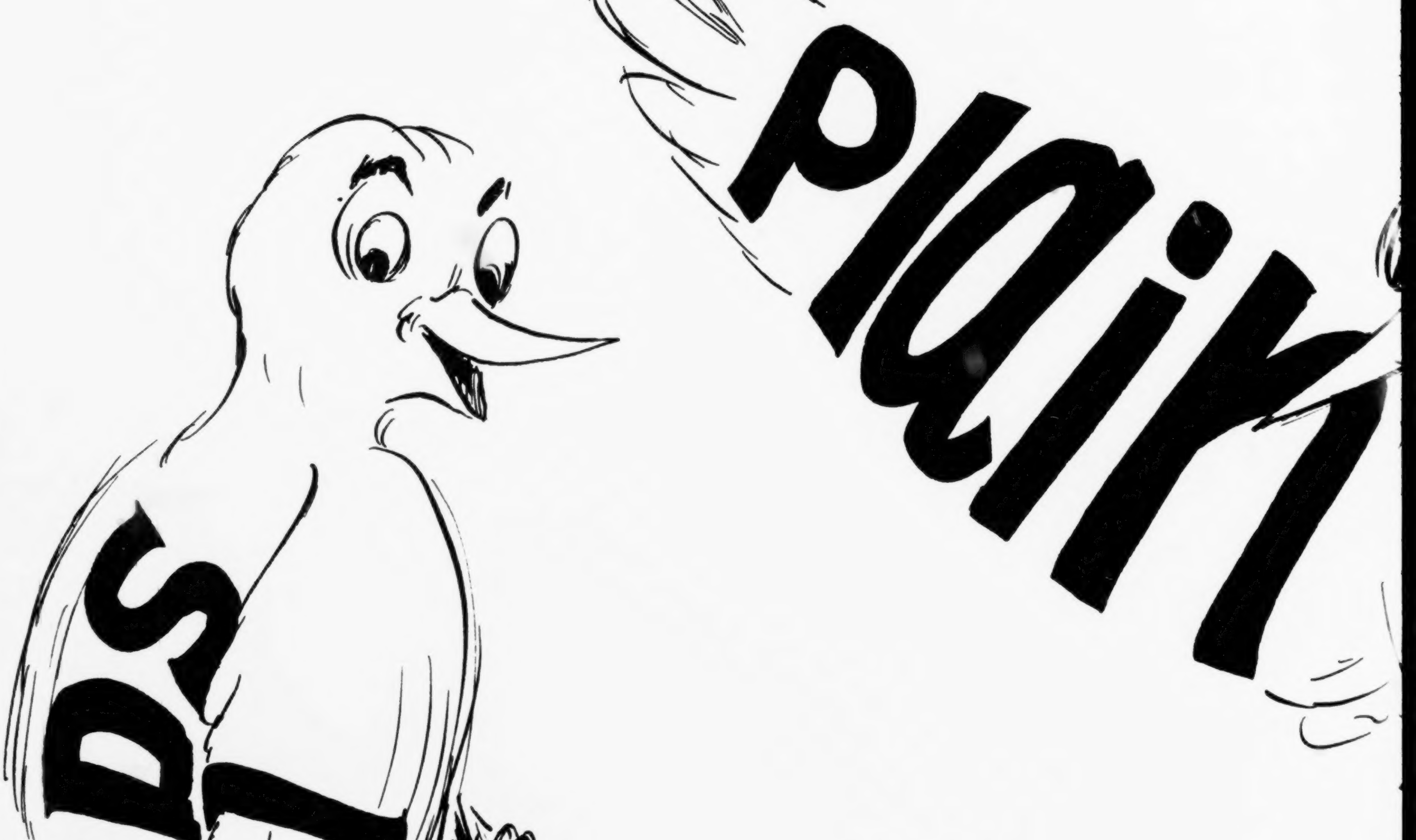
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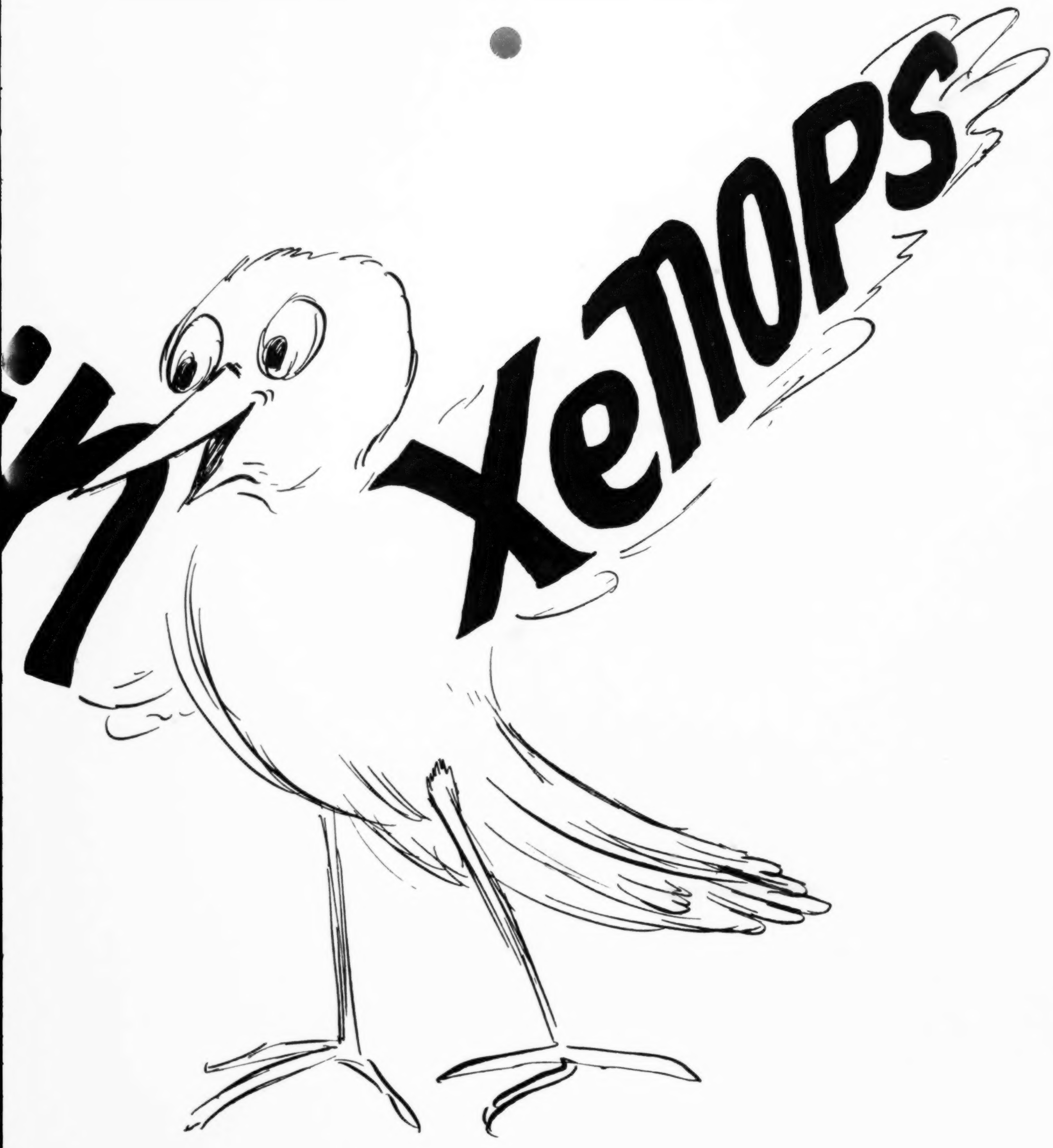
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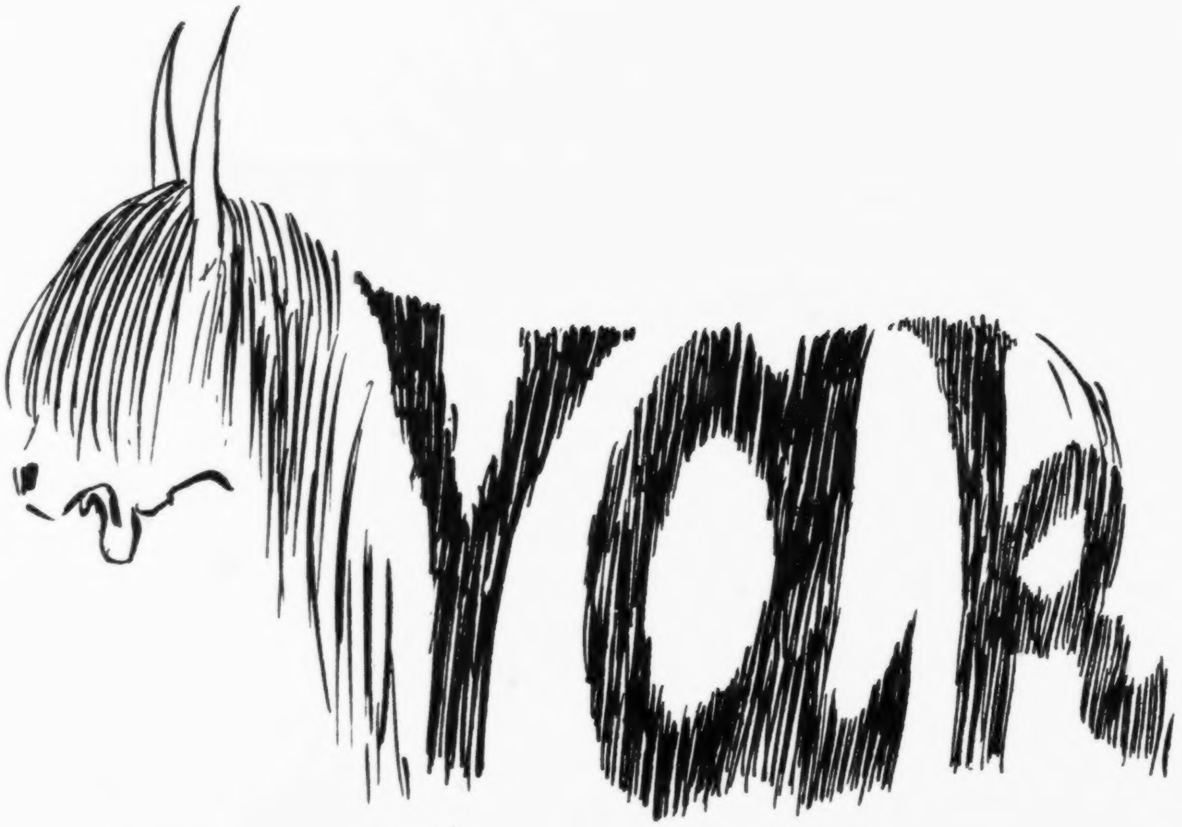
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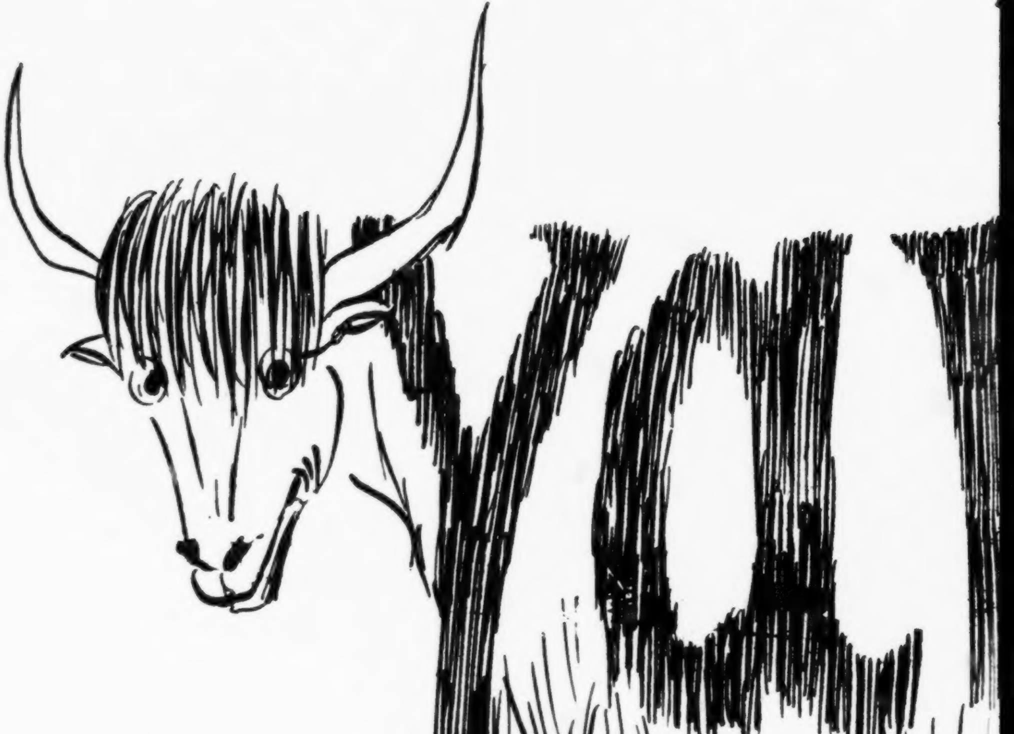
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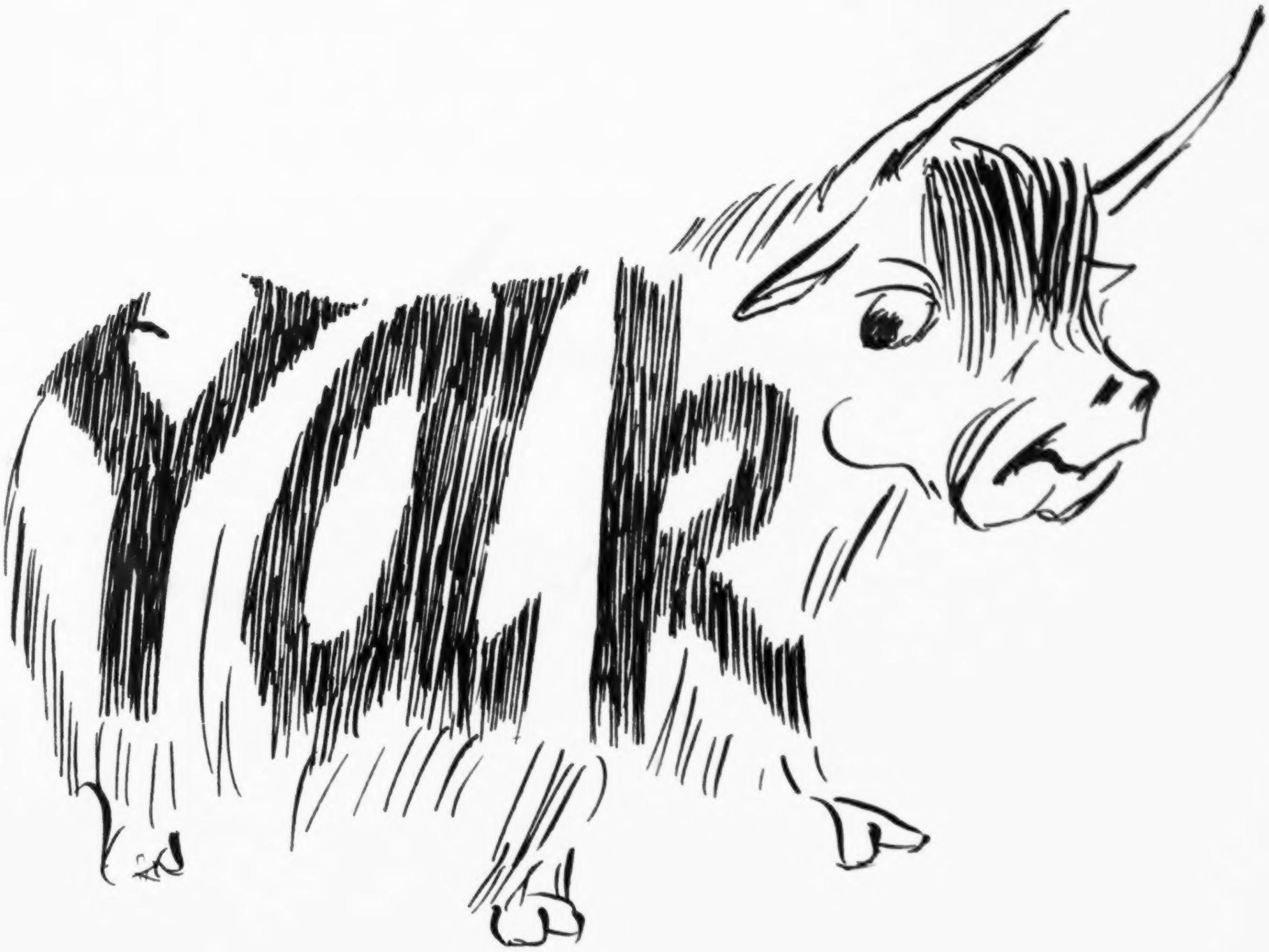
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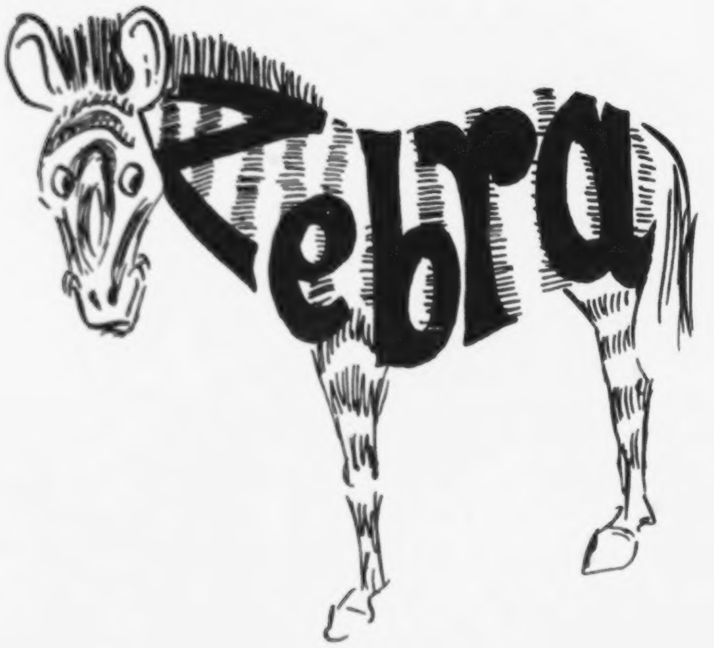
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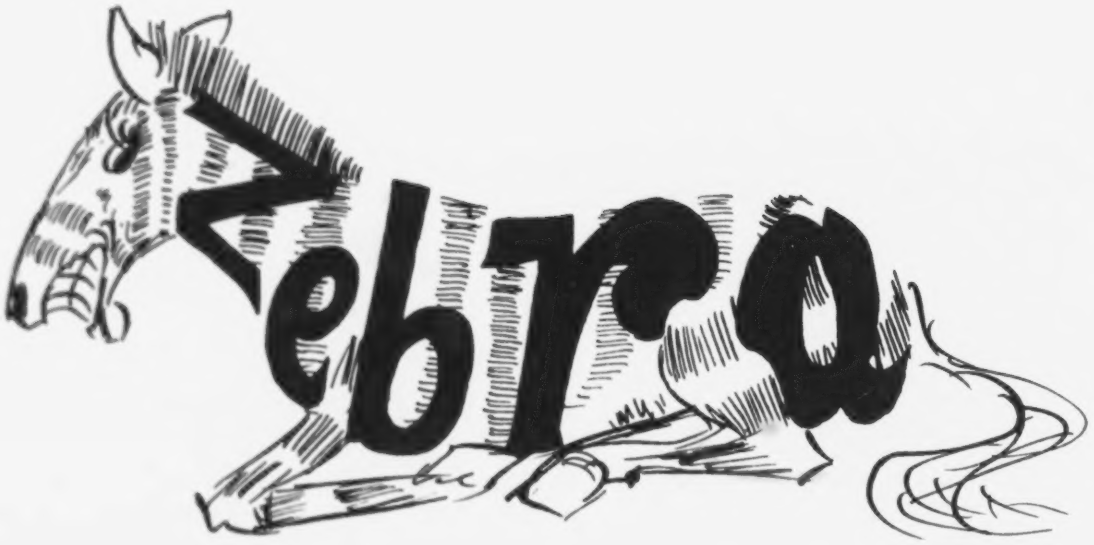
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